

SIEMENS

VIDEORECORDER FM619 Q4 FM619 K4

S-VHS **HQ** **VPS** **digital** **Hi-Fi-Stereo**

82.440
STK 73 605 → *Wetstein* 409 149 6803

5



Schaltpläne + Platinen
Block diagram
Circuit diagram
Printed circuit boards

216 9310

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FM619 Q4/FM619 K4

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Zur Beachtung!

Alle Bauteile, die in den Listen mit dem Symbol „Δ“ gekennzeichnet sind, haben für die elektrische Sicherheit des Gerätes eine besondere Bedeutung. Verwenden Sie beim Austausch dieser Teile immer das Original-Ersatzteil laut Ersatzteilliste. Technische Daten dieser Teile müssen unbedingt eingehalten werden!

Product safety notice

Product safety should be considered when a component replacement is made in any area of a unit. Components indicated by the symbol Δ in this schematic diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the attached parts list be used for component replacement designated by the symbol.

SIEMENS

BLOCKSCHALTPLAN—VERDRAHTUNGSPLAN

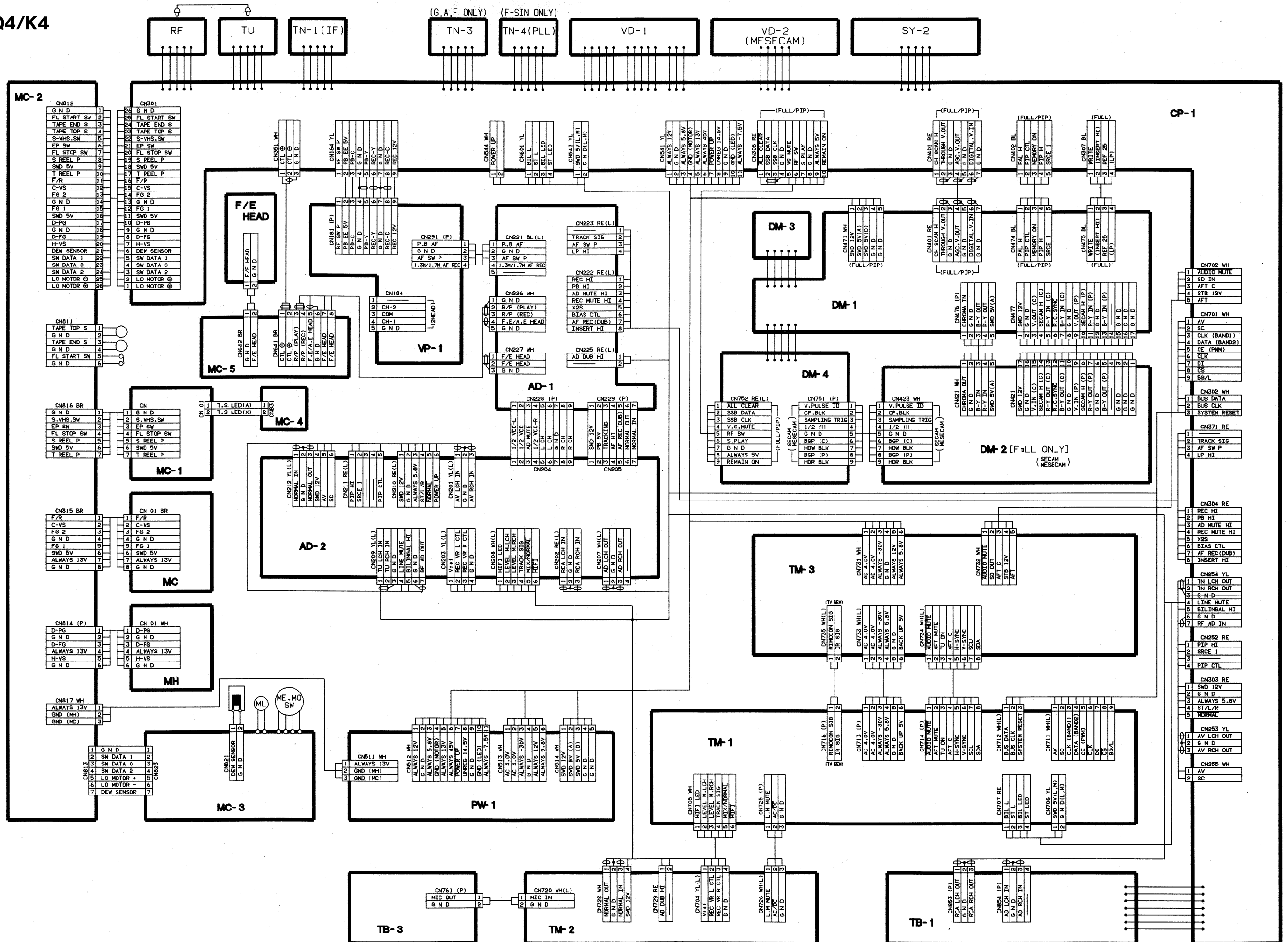
OVER ALL WIRING DIAGRAM

SCHEMA A BLOCCHI—SCHEMA DI CABLAGGIO

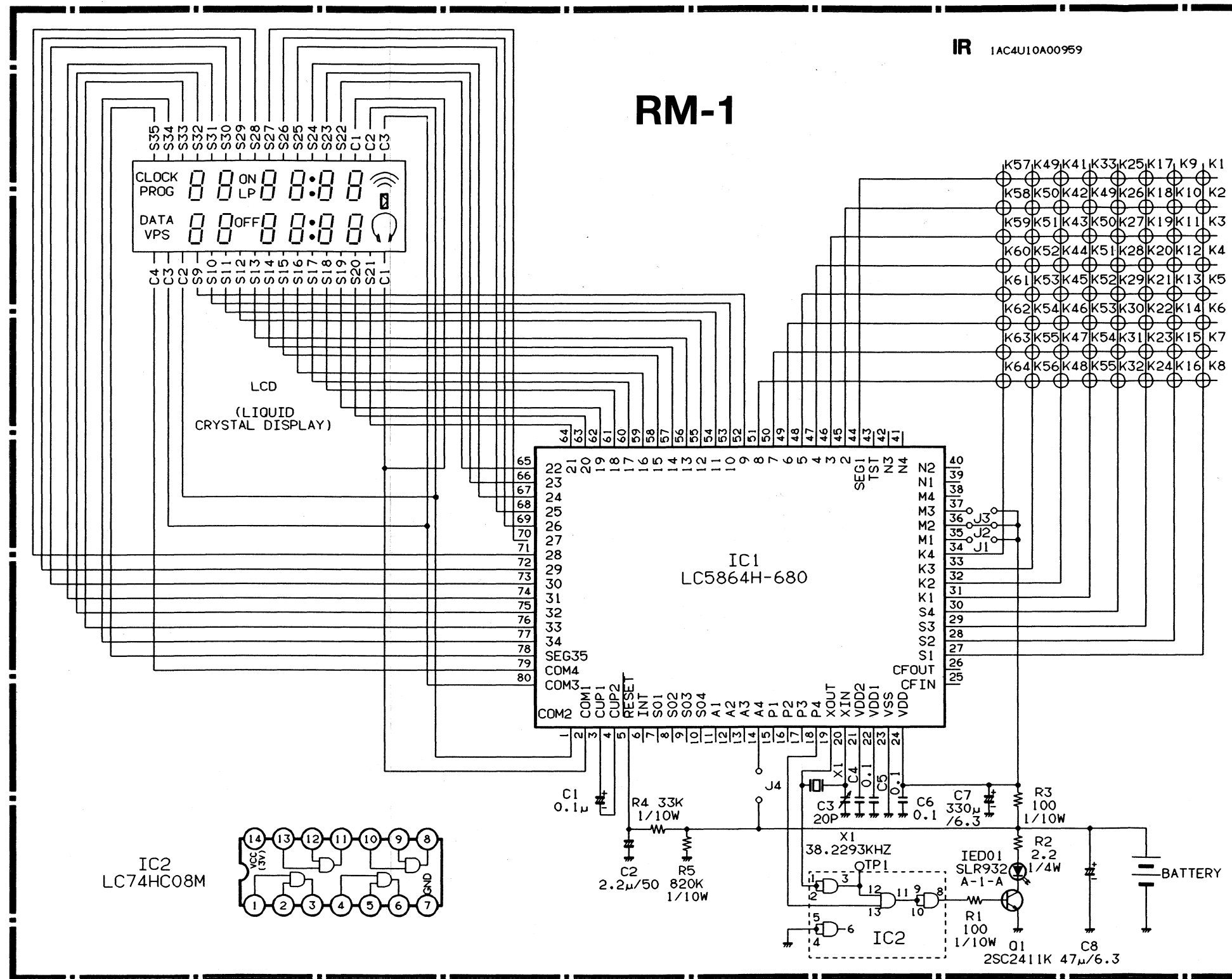
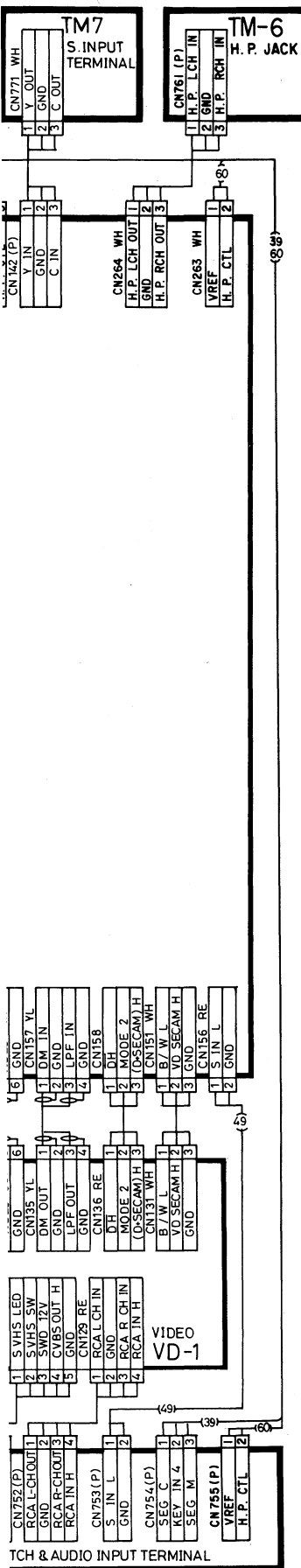
SYNOPTIQUE—SCHEMA DE CABLAGE

PLANO DE CONEXIONES

BLOCKSCHEMA—BEDRADINGSSCHEMA



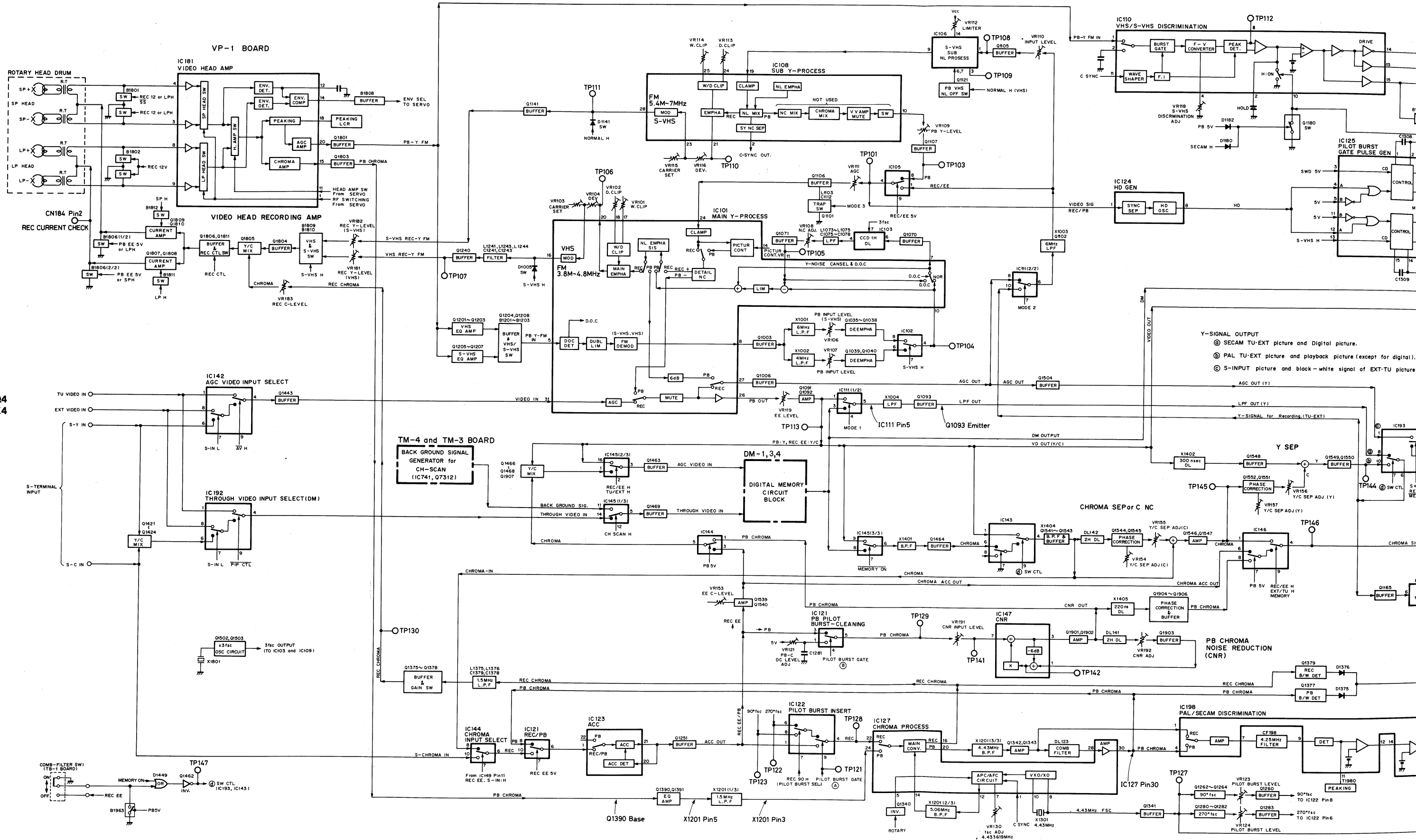
IR-Geberplatte IR REMOTE CONTROL



KEY NO.	NORMAL	SHIFT
K1	▶ SLOW	QUICK
K2	■/○ STOP,ON/STAND BY	—
K3	MEMORY	RECALL
K4	+ SLOW SPEED	—
K5	- SLOW SPEED	—
K6	TV SCAN	—
K8	RELEASE	—
K9	▶▶ FF	—
K10	▶ PLAY	—
K11	● COLOUR SATURATION +	—
K12	◀ REW	◀▶ AUTO PLAY
K13	■ PAUSE/STILL	—
K14	○ TV ON/OFF	—
K15	● COLOUR SATURATION -	—
K16	▲ VOLUME -	—
K17	MARK	—
K18	● A.DUB	—
K19	● INSERT	—
K20	● REC	—
K21	—	—
K23	PIP	—
K24	▲ VOLUME +	—
K25	MEM/REP	—
K26	RESET	—
K27	→ CH UP	20 (TV)
K28	← CH DOWN	10 (TV)
K29	0	0/AV (TV)
K33	C.DISP	—
K34	CH/AV	—
K35	9	9 (TV)
K36	8	8 (TV)
K37	7	7 (TV)
K41	AUTO TRACKING	—
K42	VPS	—
K43	6	6 (TV)
K44	5	5 (TV)
K45	4	4 (TV)
K49	SP/LP	AUDIO
K50	RECALL	—
K51	3	3 (TV)
K52	2	2 (TV)
K53	1	1 (TV)
K57	◻ TRANS	—
K58	PROG	CLOCK
K59	SEARCH	—
K60	SPECIAL	—
K61	SHIFT	—

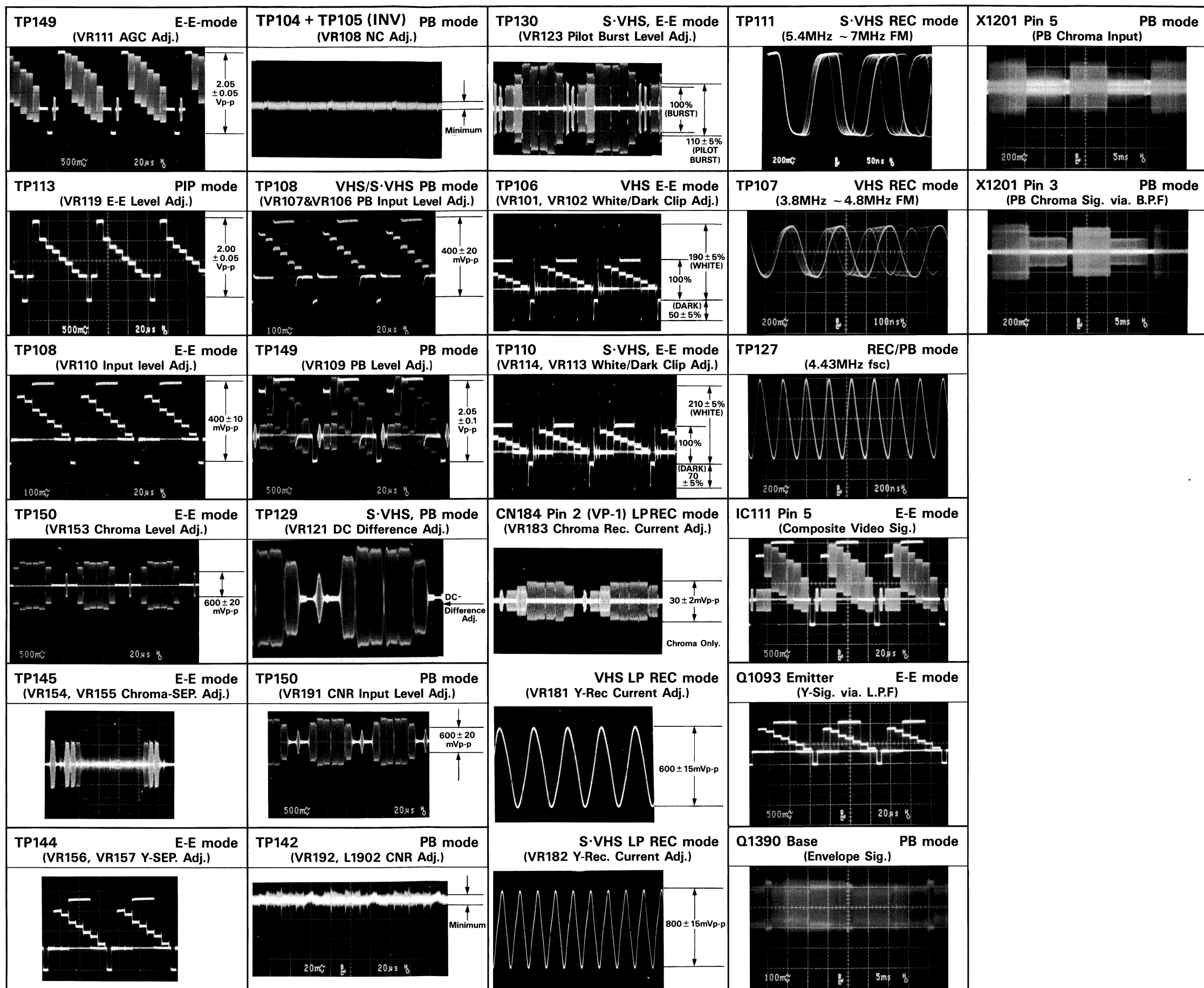
A
FM619 Q4
FM619 K4

VIDEO BLOCK DIAGRAM



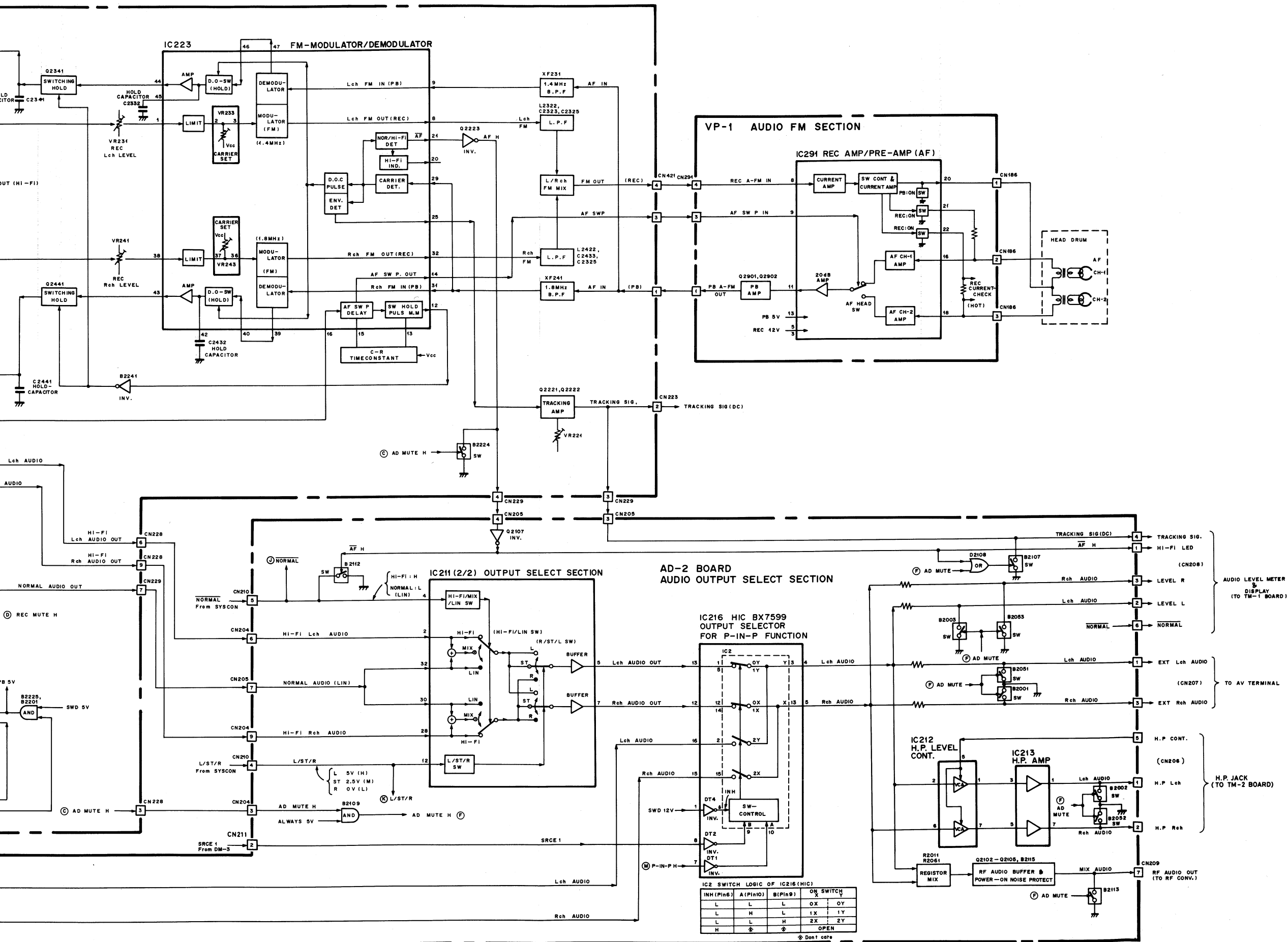
B
FM619 Q4
FM619 K4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17





AUDIO BLOCK DIAGRAM



C
FM619 Q4
FM619 K4

K



G

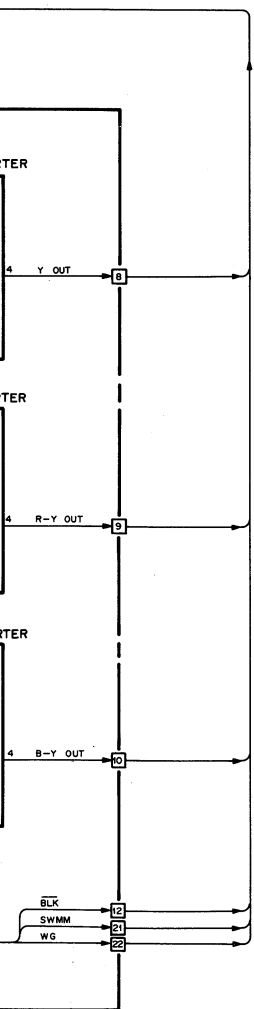
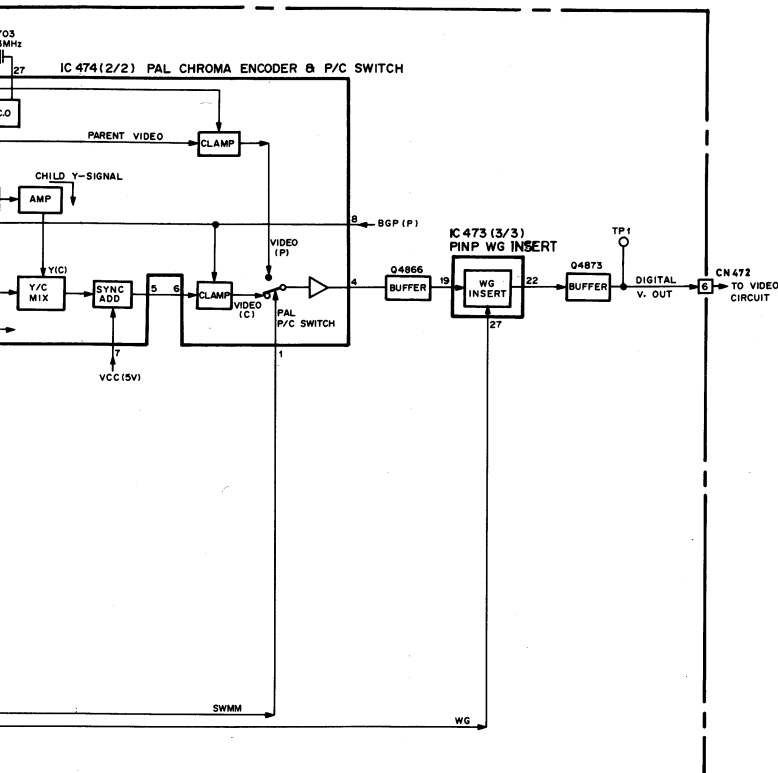
E

D

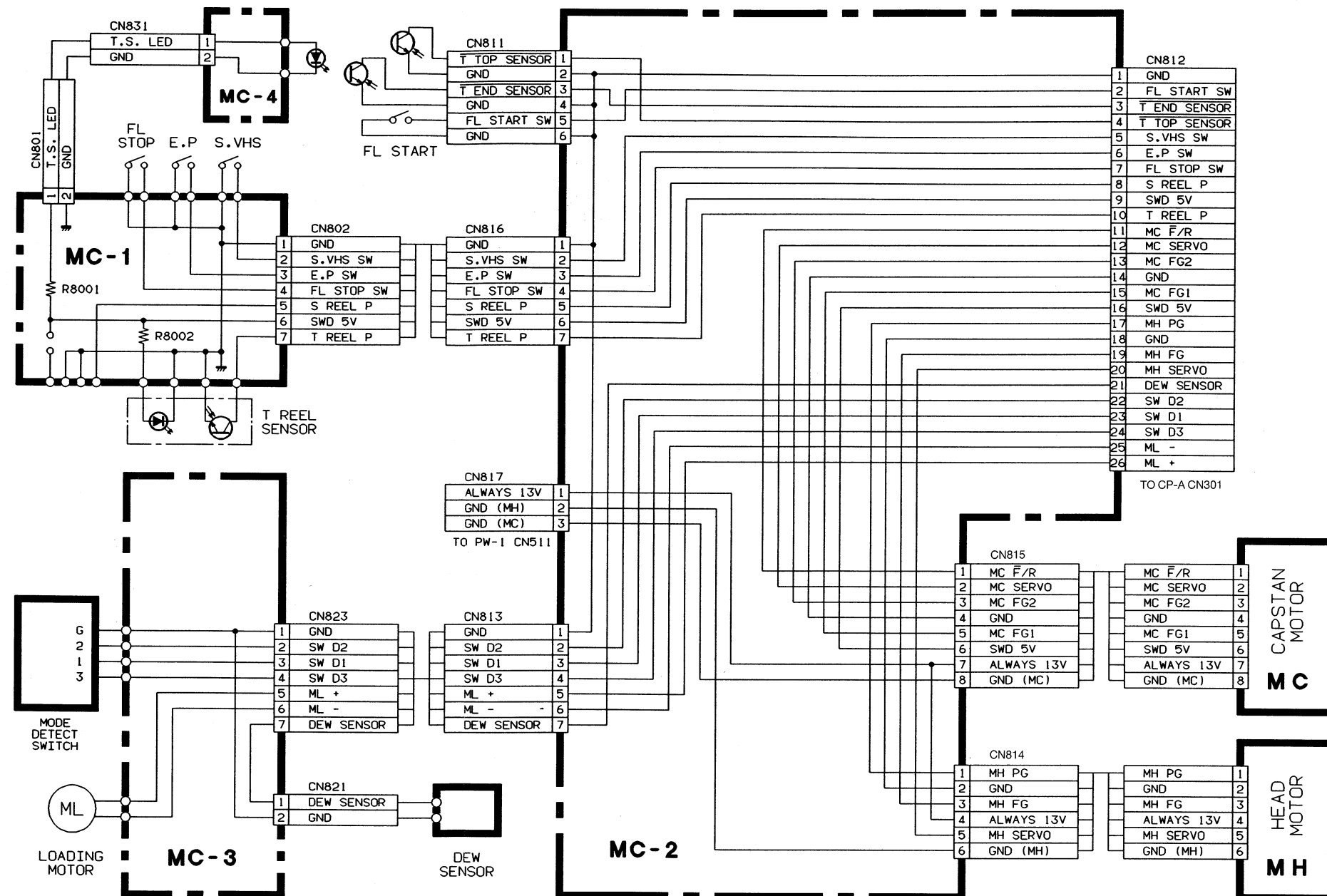
C

B

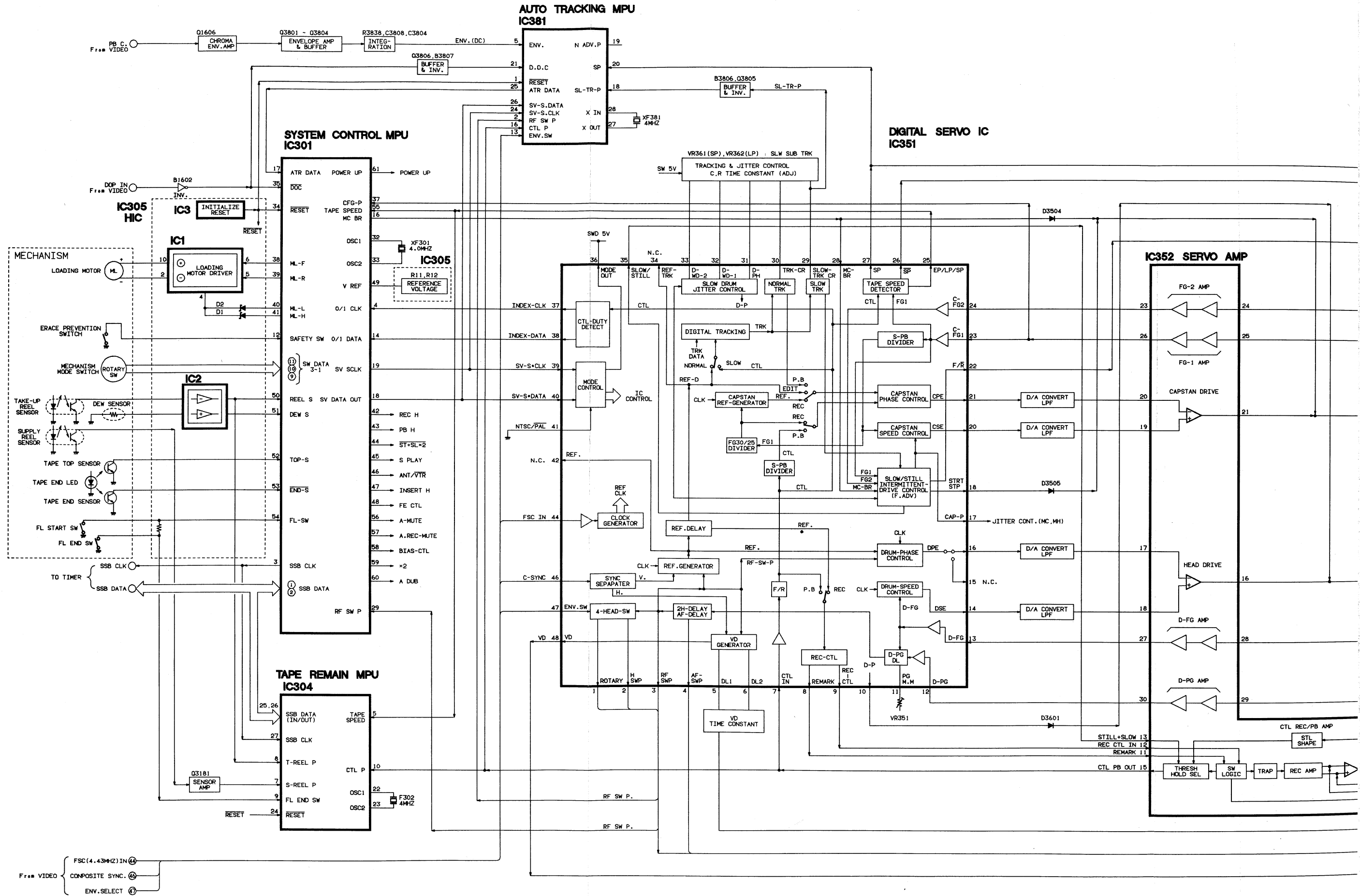
A

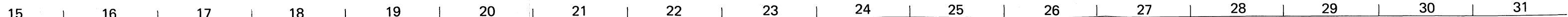


MC-2 Adapter MECHANISM CONNECTION



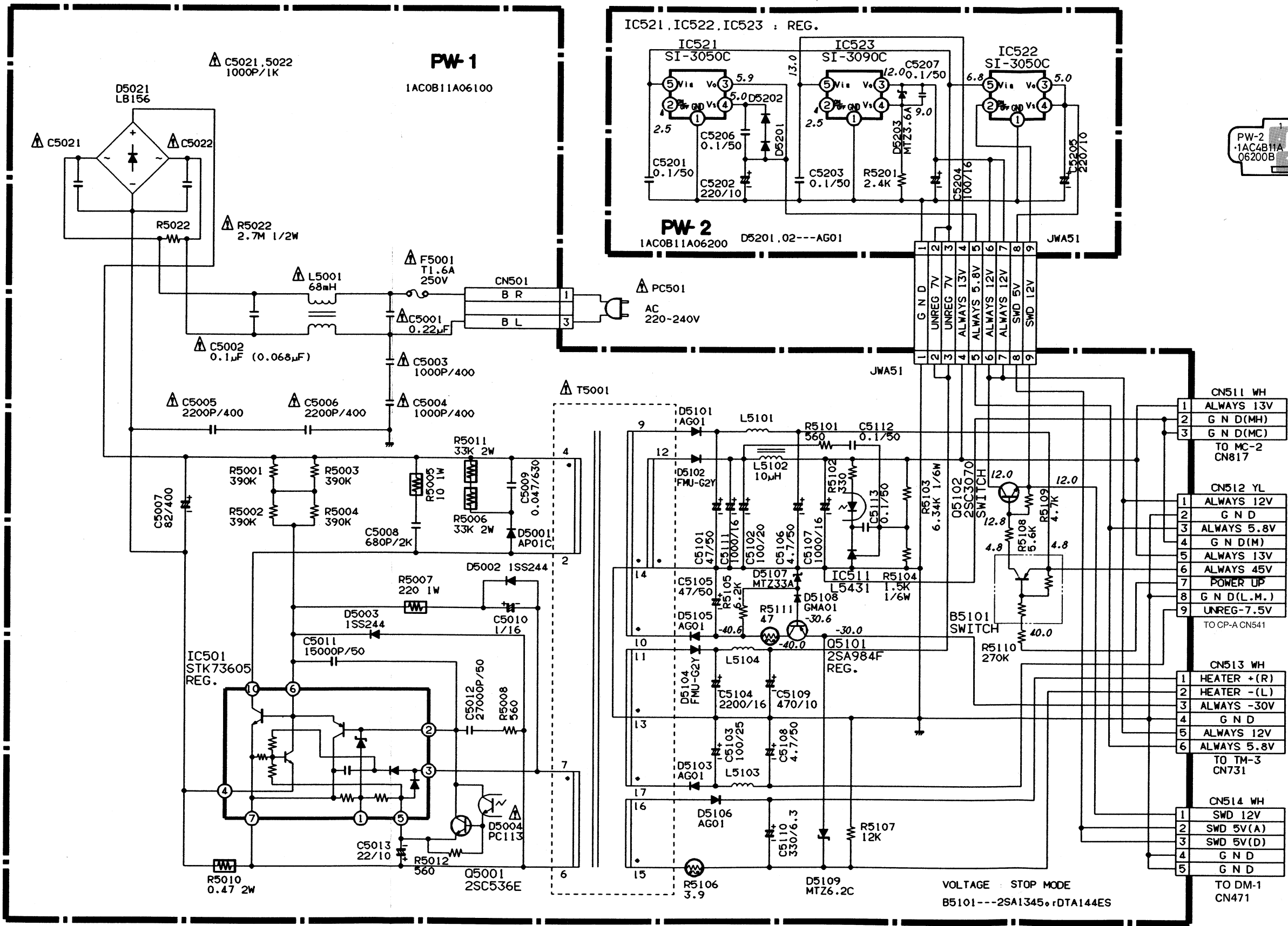
Ablaufsteuerung und Servo SYSTEM CONTROL & SERVO BLOCK DIAGRAM



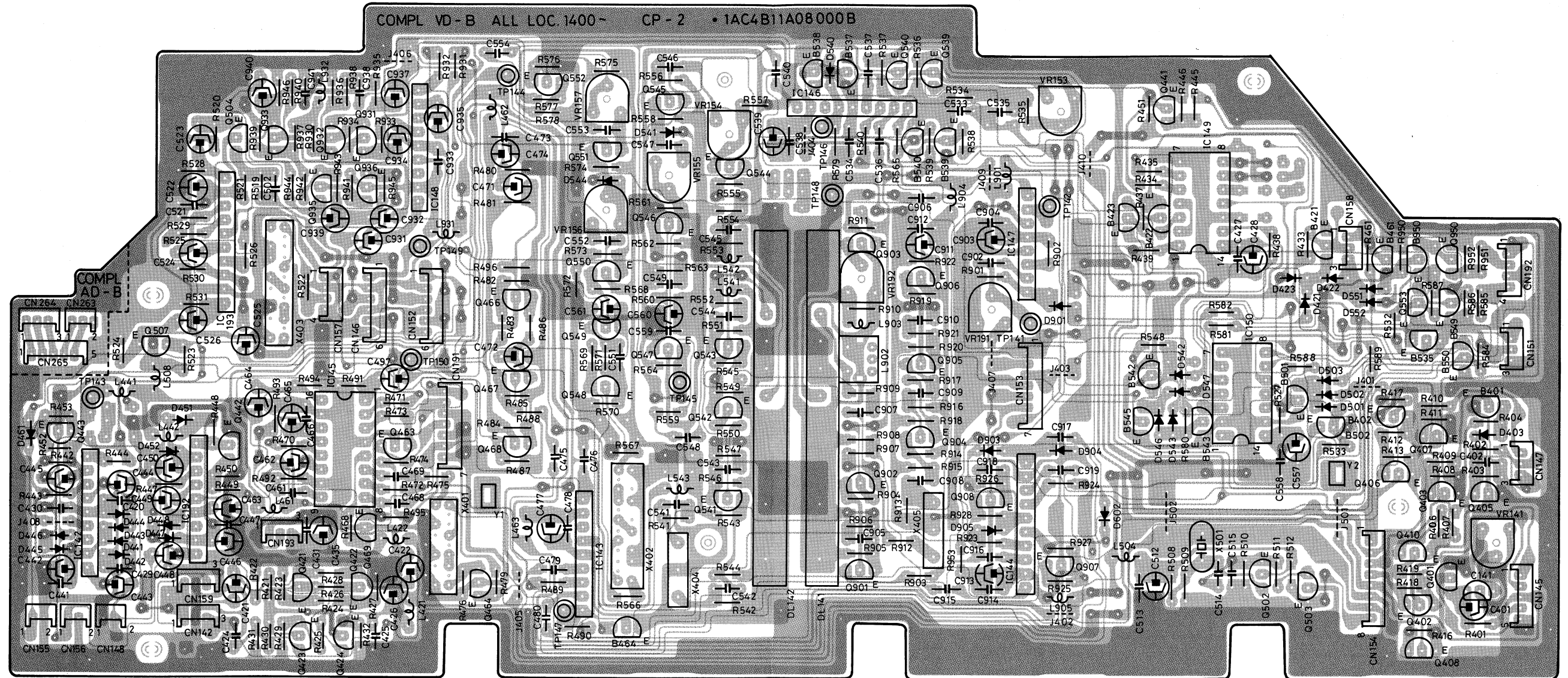
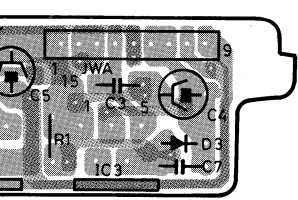


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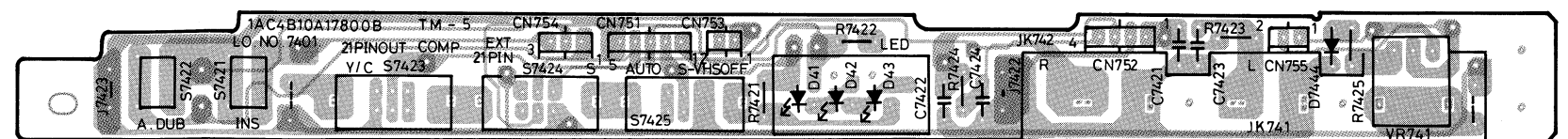
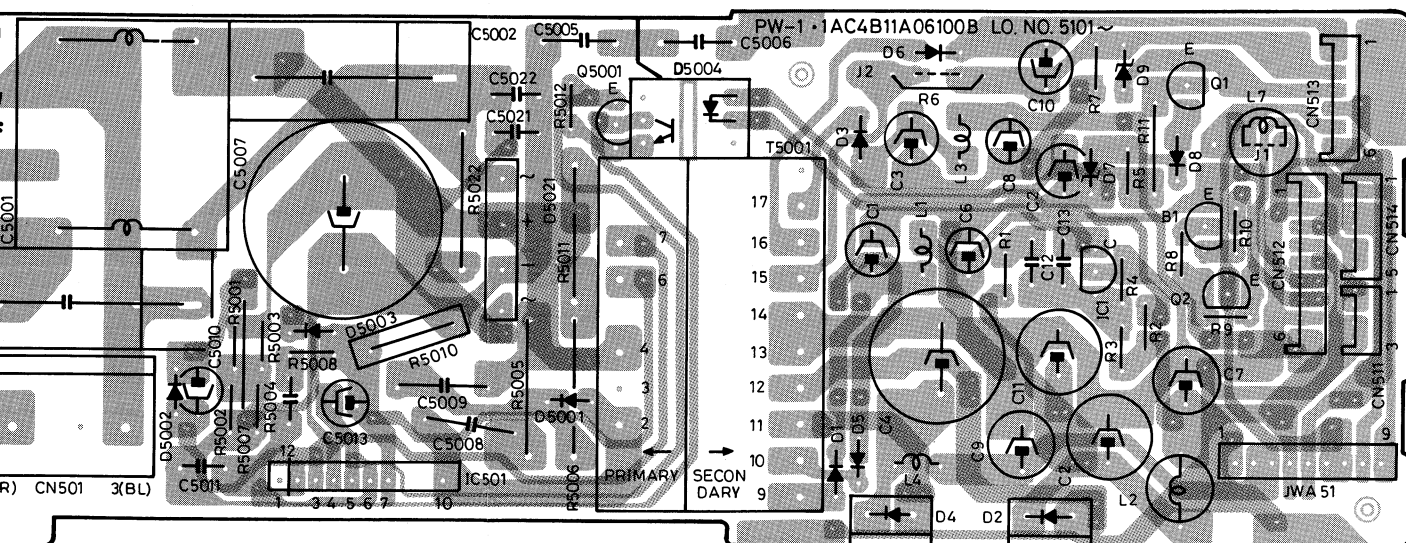
Netzteil PW-1,2
POWER SUPPLY



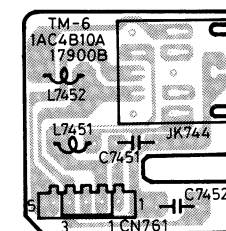
POWER SUPPLY P.C.B.



TM-5 SWITCH & AUDIO INPUT P.C.B



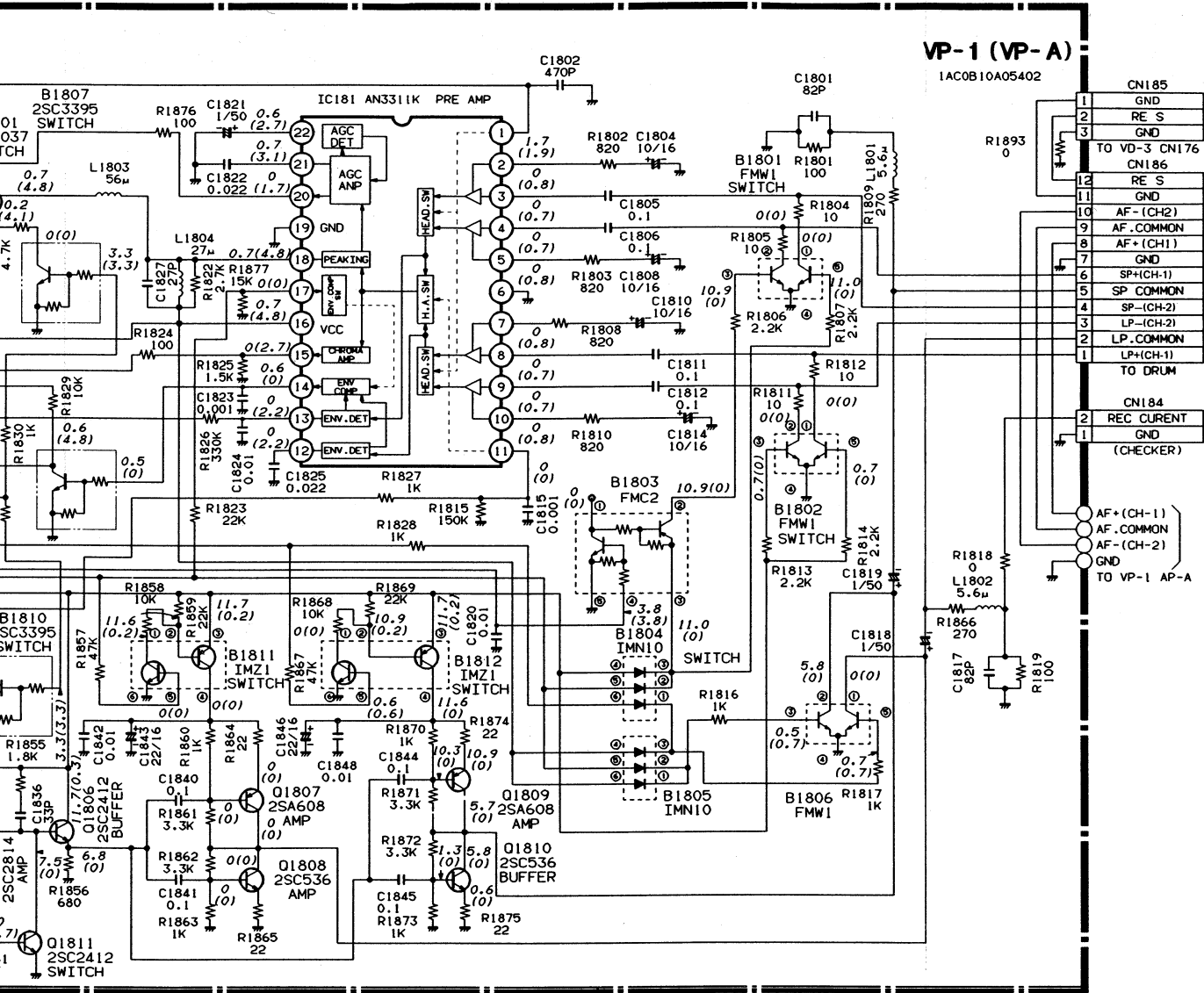
S-Buchsenplatte (input)
TM-7 S. INPUT P.C.B.



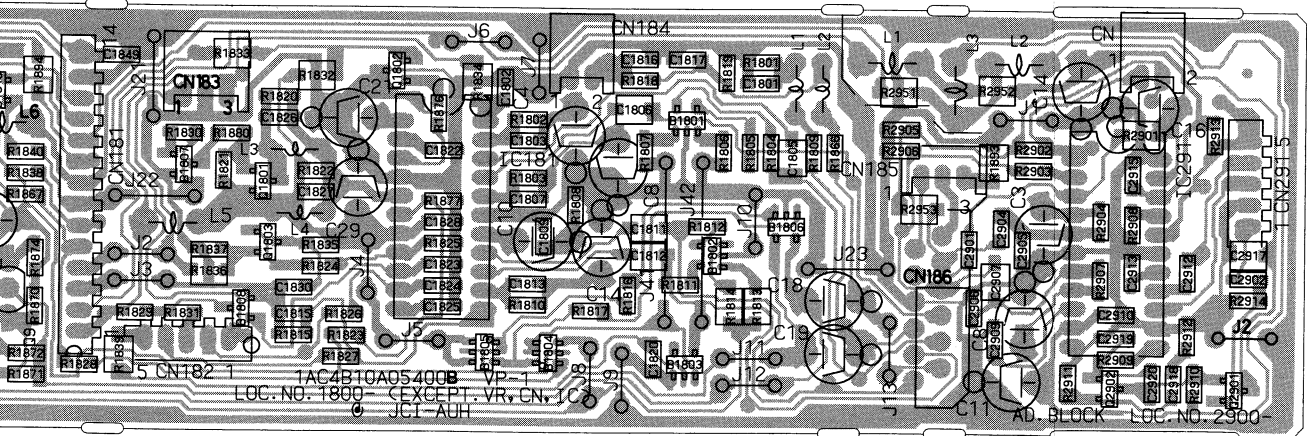
J



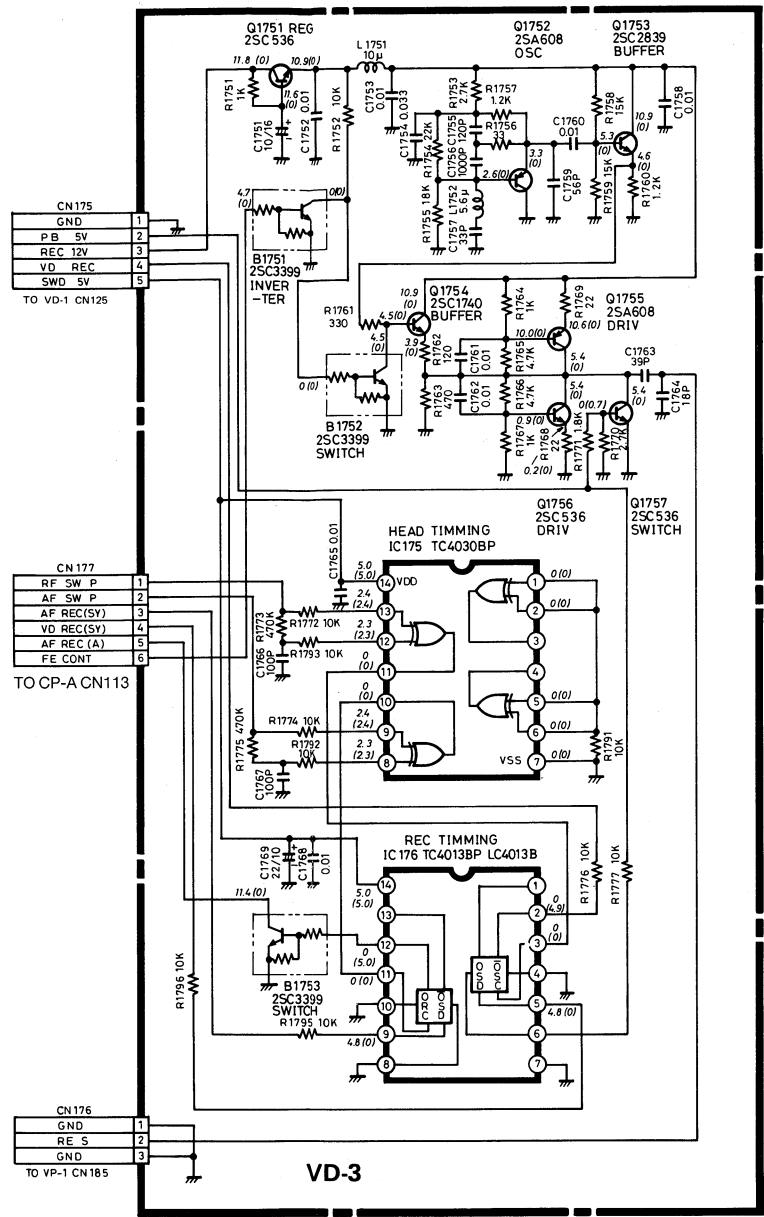
Videovorverstärker
VP-1 VIDEO, PRE-AMP



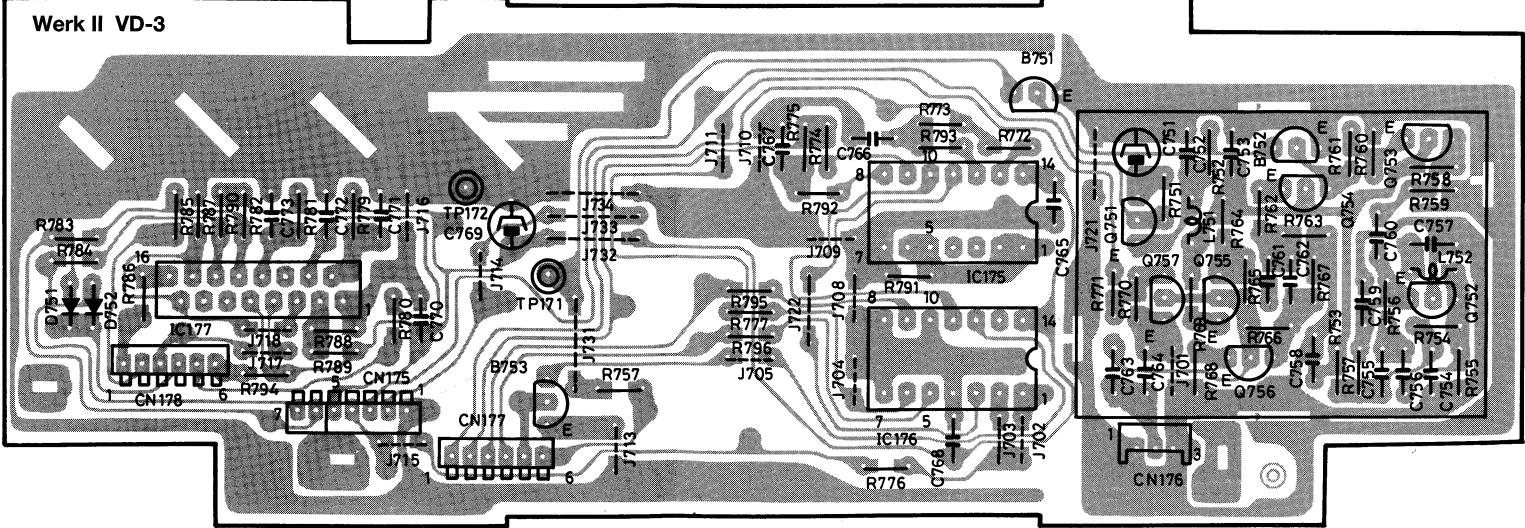
Video- + Audio-Vorverstärker
VP-1 VIDEO & AUDIO PRE-AMP P.C.B.



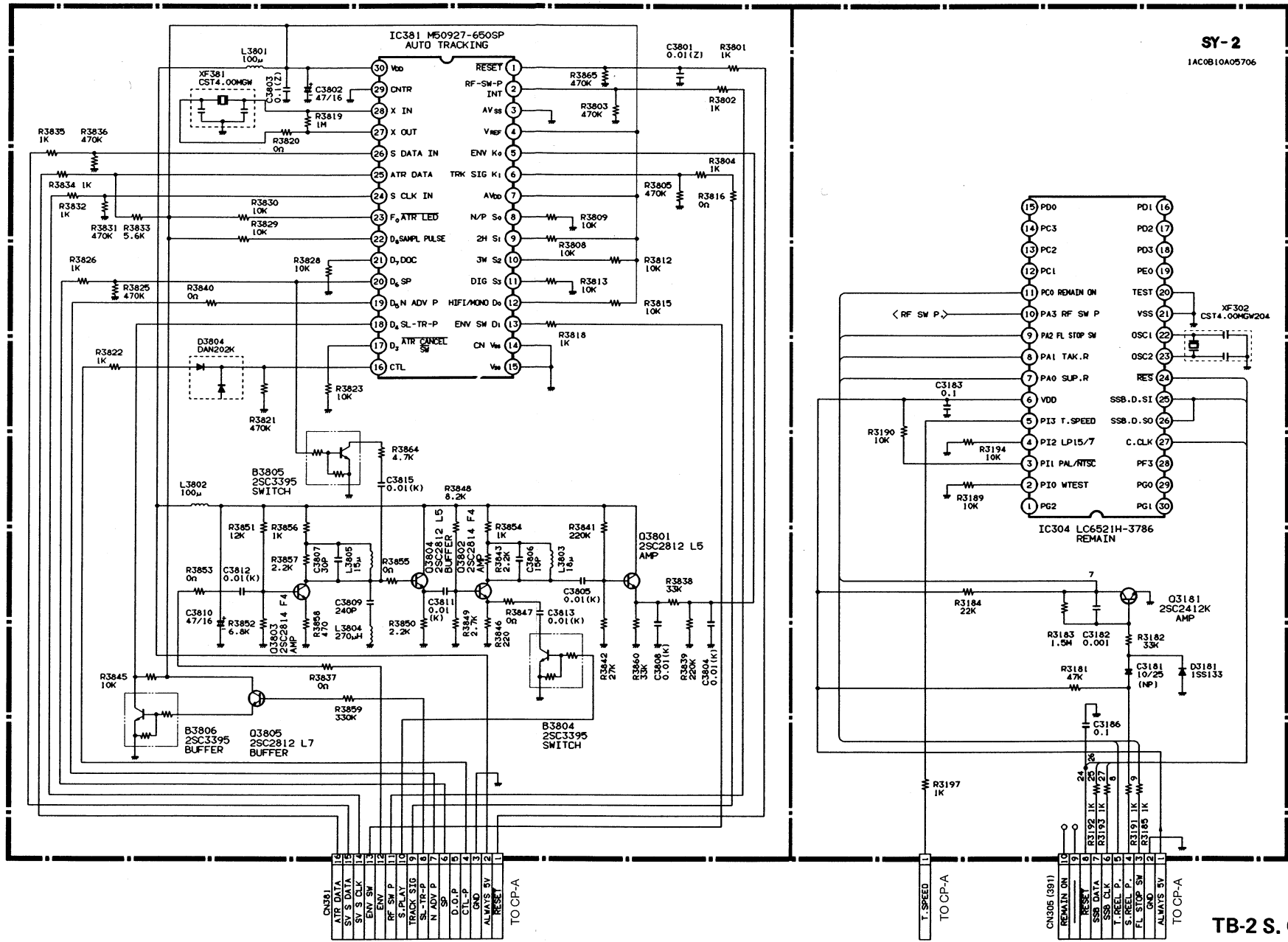
Platine für rotierenden Löschkopf
VD-3 FLYING ERASE P.C.B.



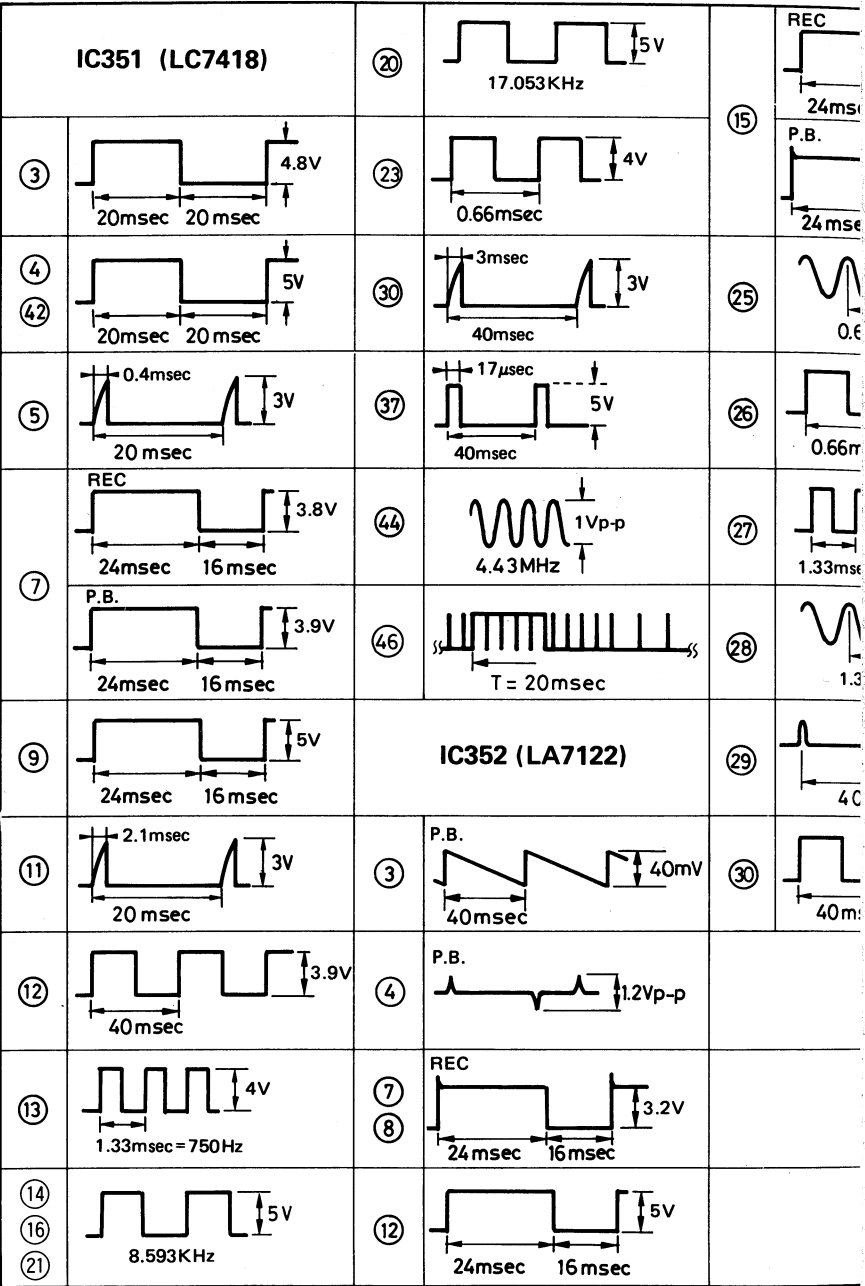
Platine für rotierenden Löschkopf
VD-3 FLYING ERASE P.C.B.



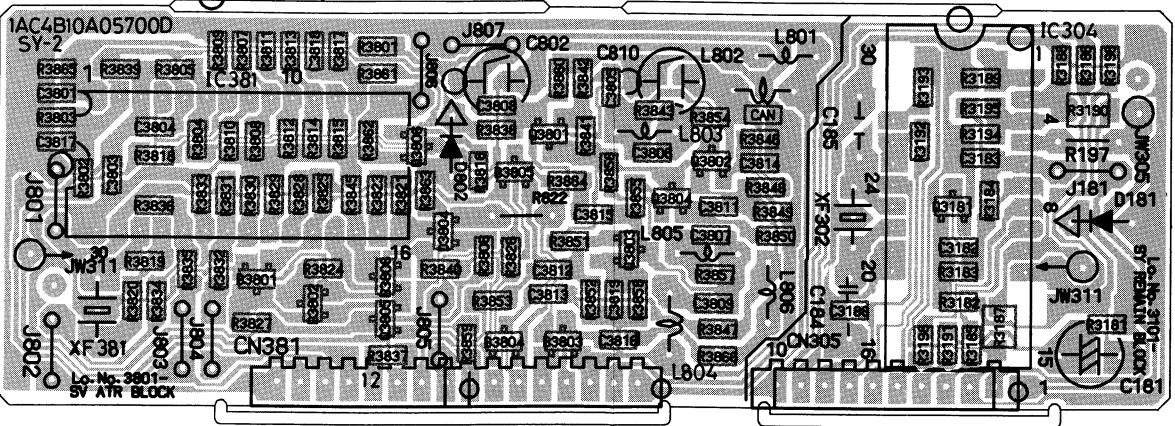
Automatische Spurnachführung, Restspielzeitkontrolle SY-2 AUTO TRACKING & TAPE REMAIN



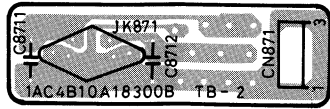
SERVO



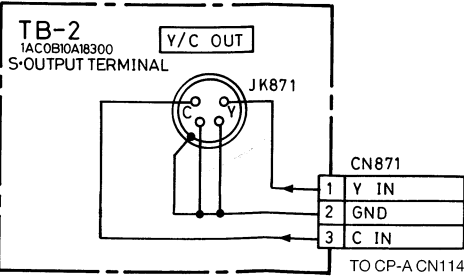
SY-2 AUTO TRACKING & TAPE REMAIN



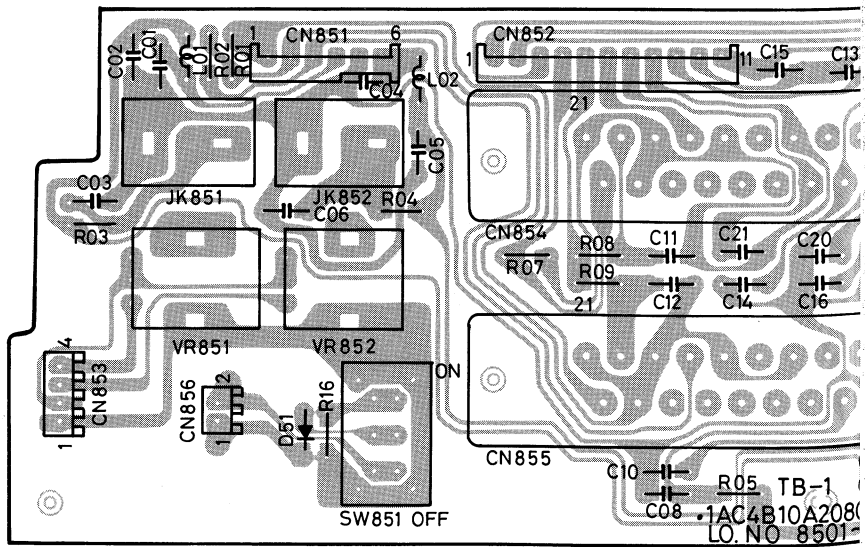
TB-2 S. OUTPUT TERMINAL



S-Buchsenplatte (OUTPUT) TB-2 S. OUTPUT TERMINAL

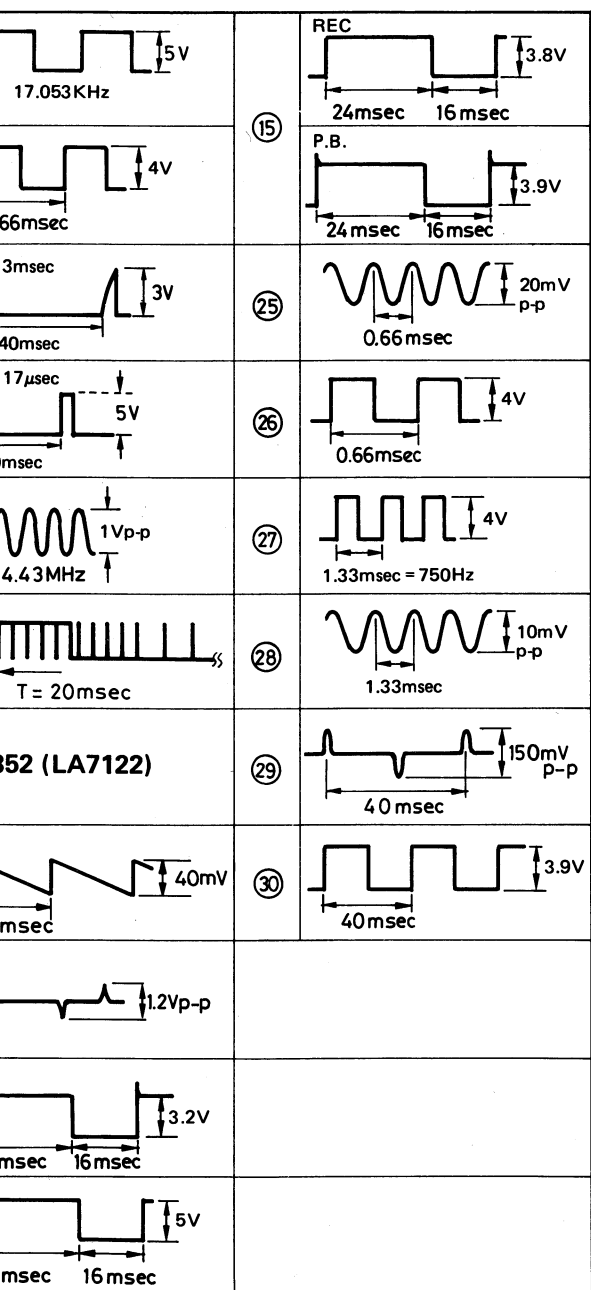


TB-1 TERMINAL P.C.B.

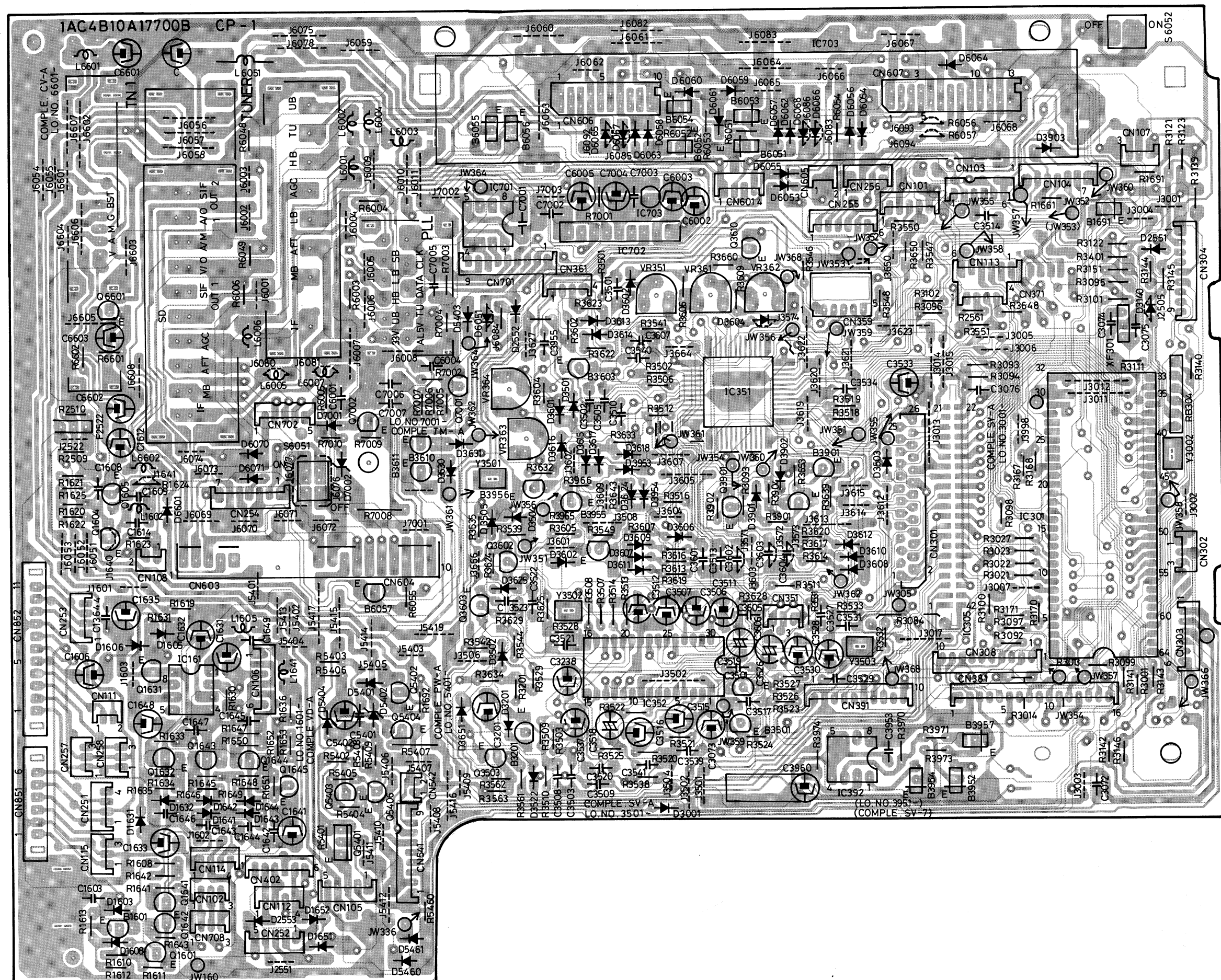
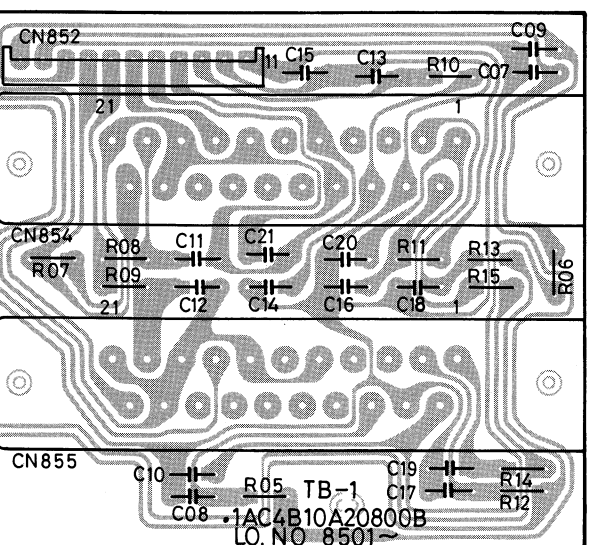


J
FM619 Q4
FM619 K4

CP-A SYSTEM CONTROL

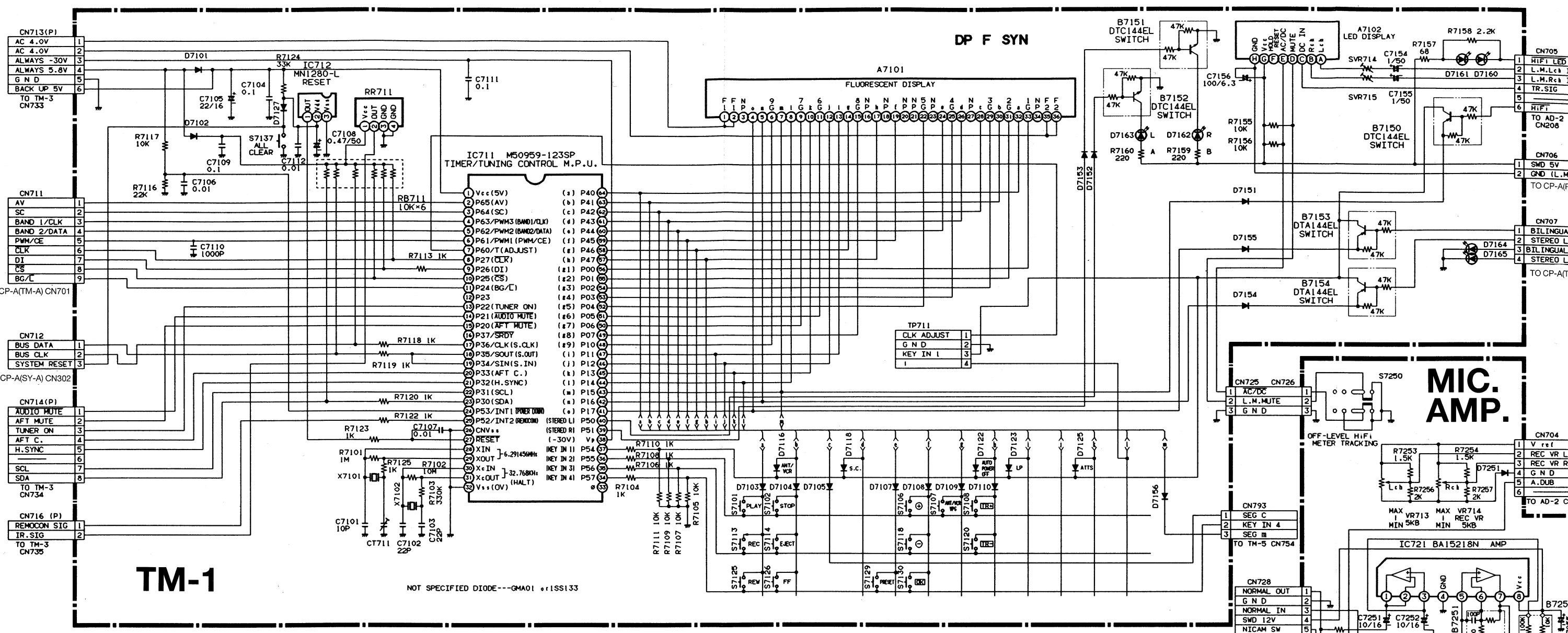


TERMINAL P.C.B.



TM-1,2 Bedienteil, Timer, Anzeige
TB-3 TIMER, DISPLAY, TUNING CONTROL, SWITCH, MIC. AMP & MIC. JACK (FM619 K4)

K
J
I
H
G
F
E
D
C
B
A



TM-1

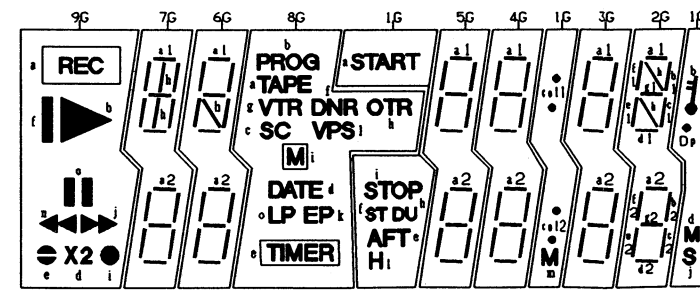
MIC. AMP.

TM-2

ANODE CONNECTION

	9G	8G	7G	6G	5G	4G	3G	2G	1G
a	REC	TAPE	a1	a1	a1	a1	a1	a1	START
b	▶	PROG.	b1	b1	b1	b1	b1	b1	3
c		SC	c1	c1	c1	c1	c1	c1	DP
d	×2	DATE	d1	d1	d1	d1	d1	d1	M(1)
e	⏸	TIMER	e1	e1	e1	e1	e1	e1	AFT
f	⏮	DNR	f1	f1	f1	f1	f1	f1	ST
g	-	VTR	g1	g1	g1	g1	g1	g1	col.1
h	-	OTR	-	-	-	-	-	-	DU
i	⏹	M	i2	i2	i2	i2	i2	i2	STOP
j	▶▶	-	b2	b2	b2	b2	b2	b2	S
k	-	EP	c2	c2	c2	c2	c2	c2	-
l	-	VPS	d2	d2	d2	d2	d2	d2	H
m	-	-	e2	e2	e2	e2	e2	e2	M(2)
n	⏮	-	f2	f2	f2	f2	f2	f2	-
o	⏸	LP	g2	g2	g2	g2	g2	g2	col.2

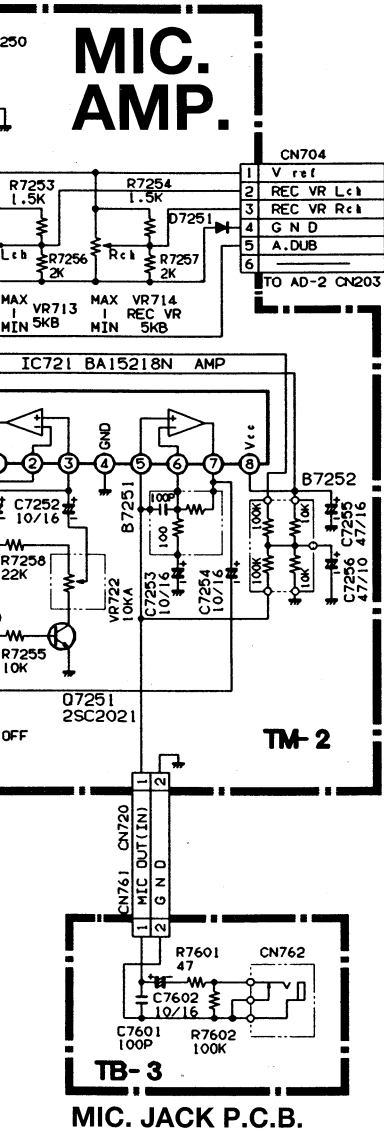
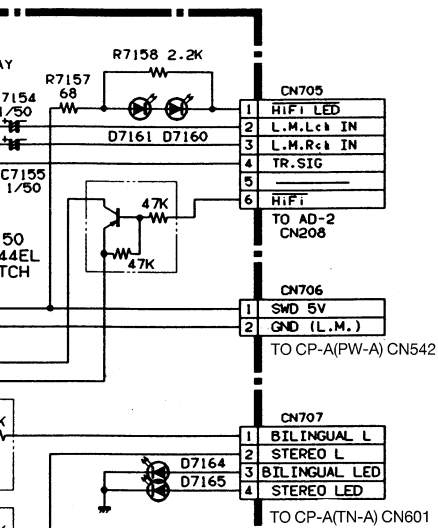
GRID ASSIGNMENT / DISPLAY



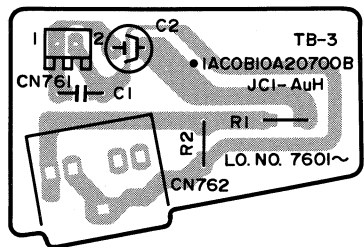
MIC. JACK P.C.B.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

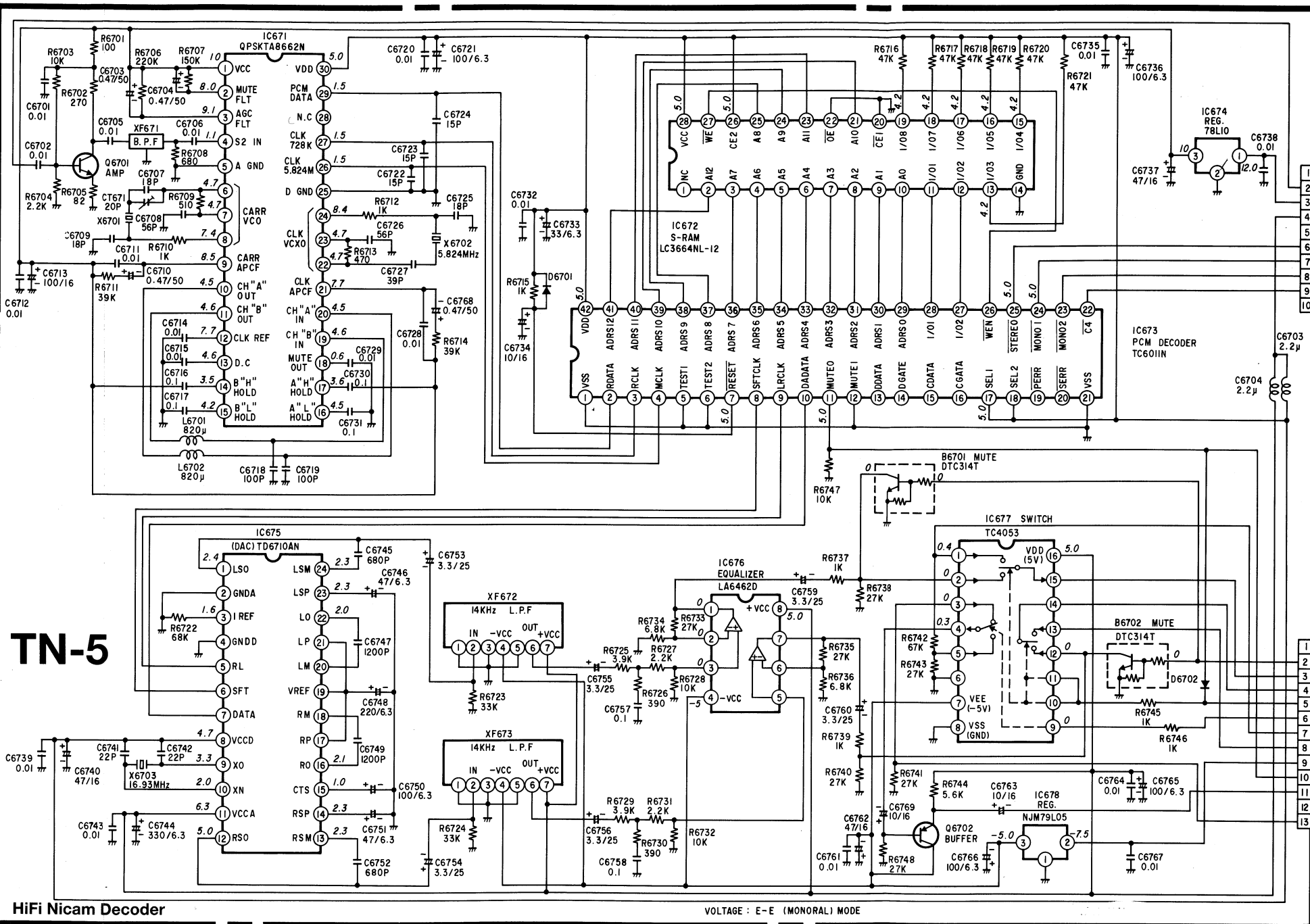
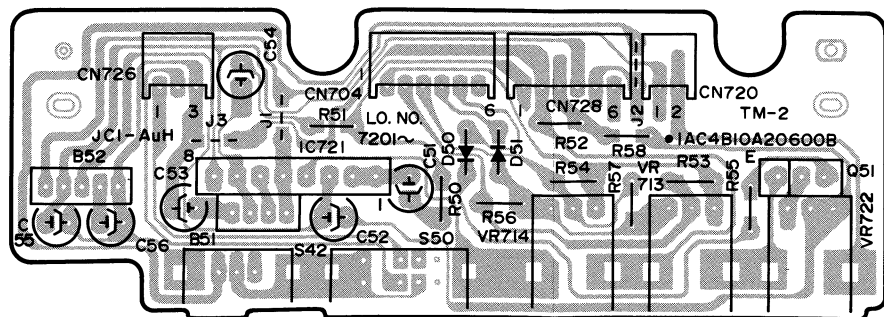
COMPL. TN-5 NICAM DECODER (FM619 K4 ONLY)



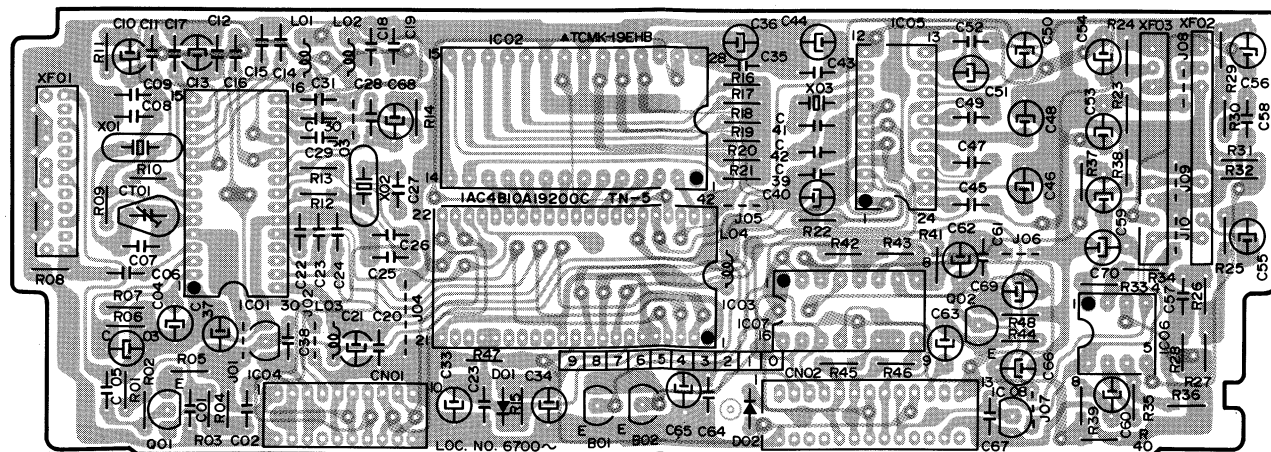
TB-3 MIC. JACK P.C.B. (FM619 K4)



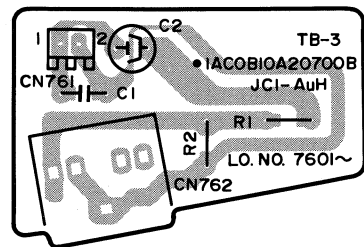
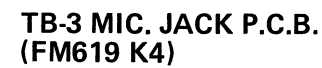
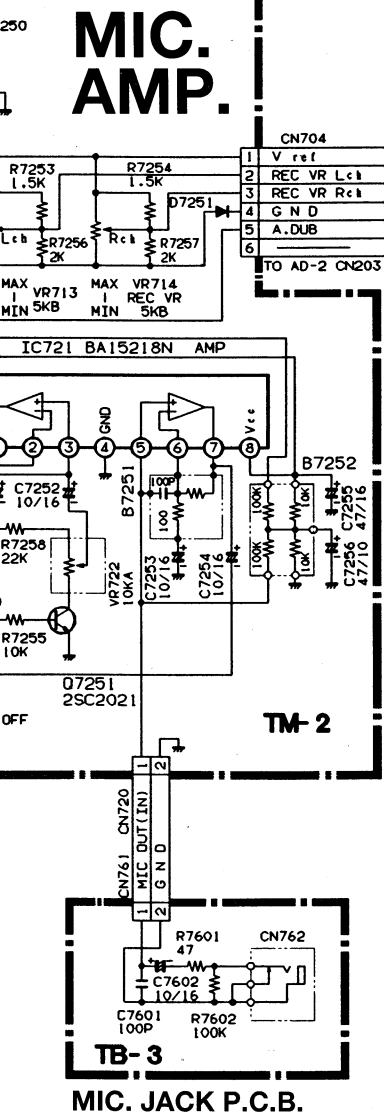
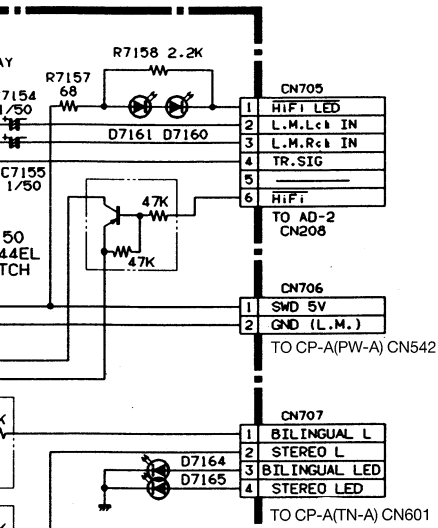
TM-2 MIC. AMP & SWITCH P.C.B. (FM619 K4)



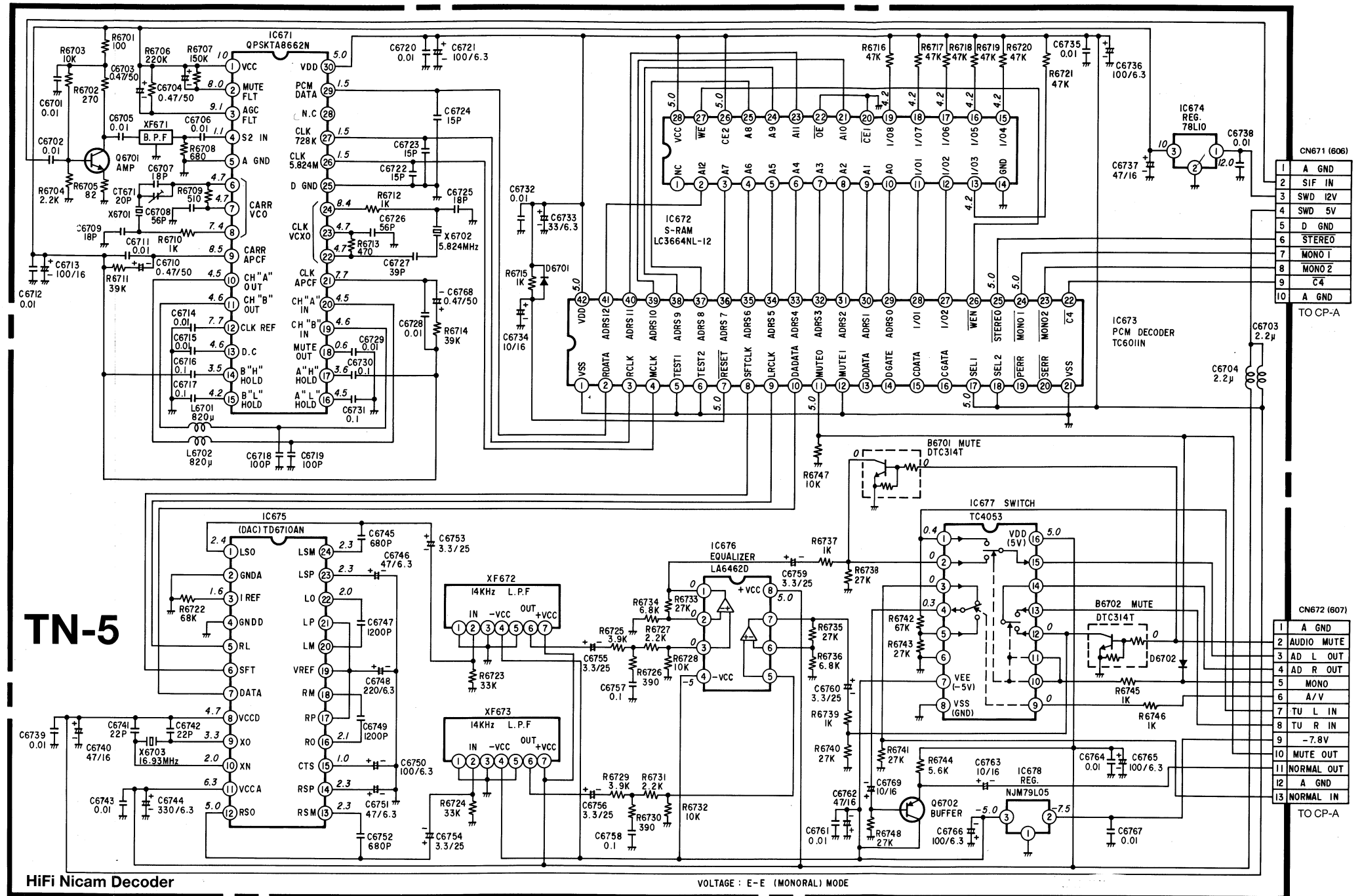
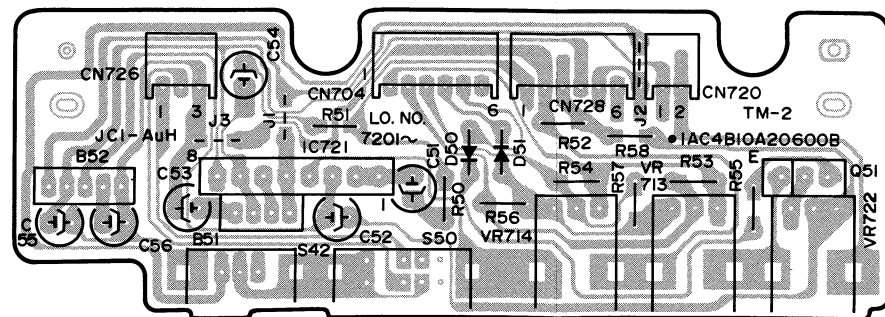
TN-5 NICAM DECODER P.C.B. (F619 K4 ONLY)



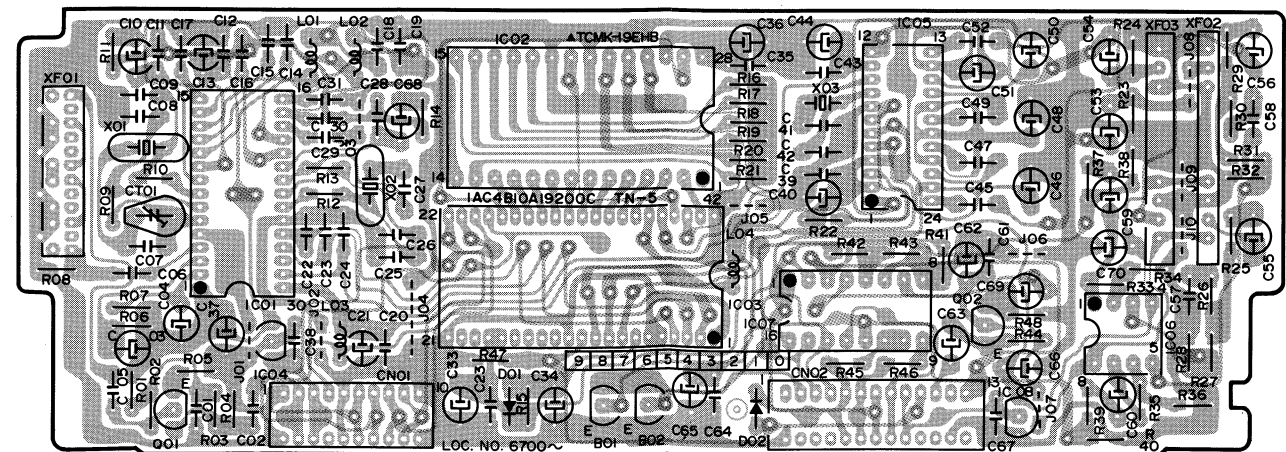
FM619 Q4
FM619 K4

COMPL. TN-5 NICAM DECODER (FM619 K4 ONLY)

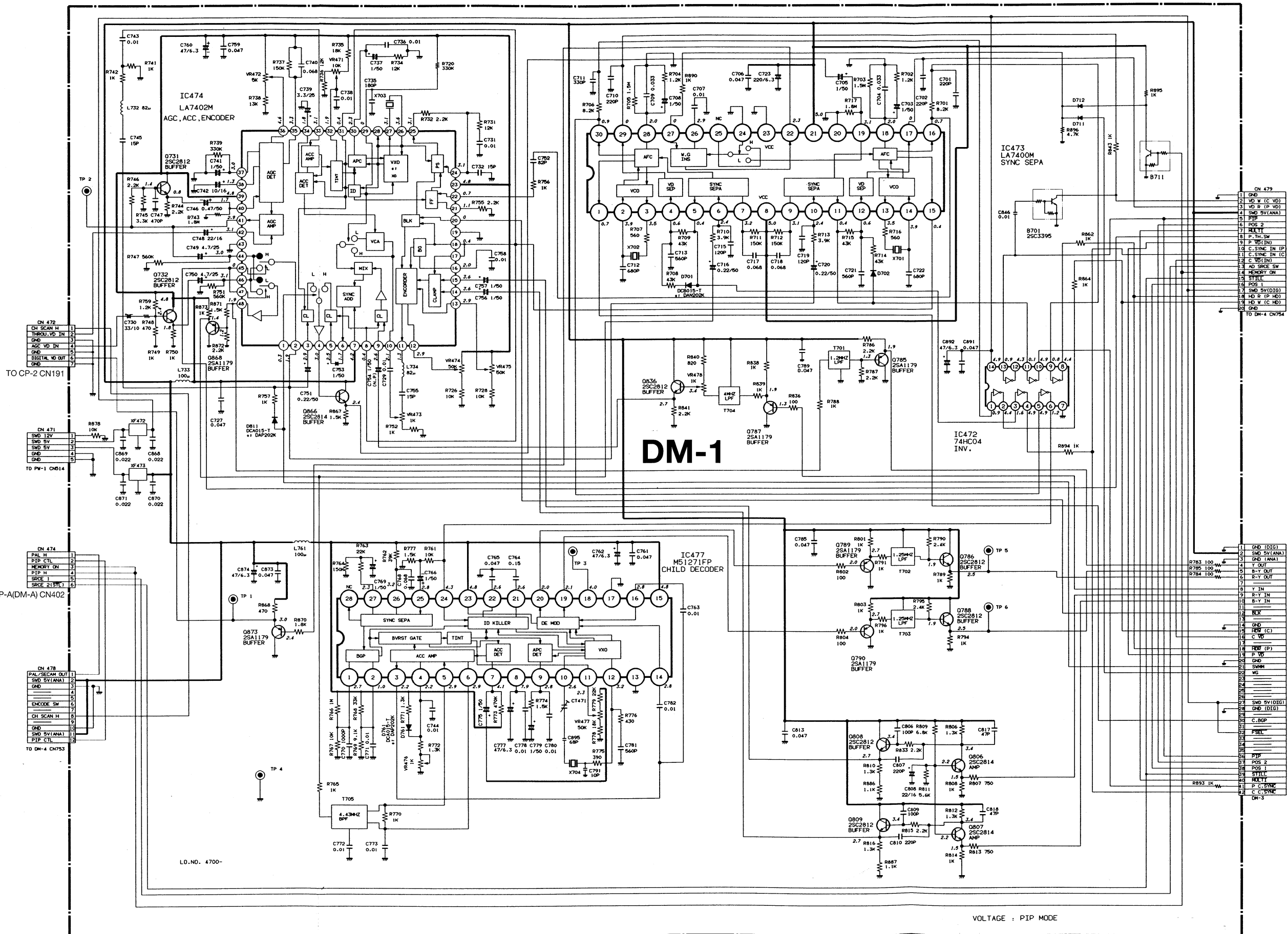
TM-2 MIC. AMP & SWITCH P.C.B. (FM619 K4)



TN-5 NICAM DECODER P.C.B. (F619 K4 ONLY)

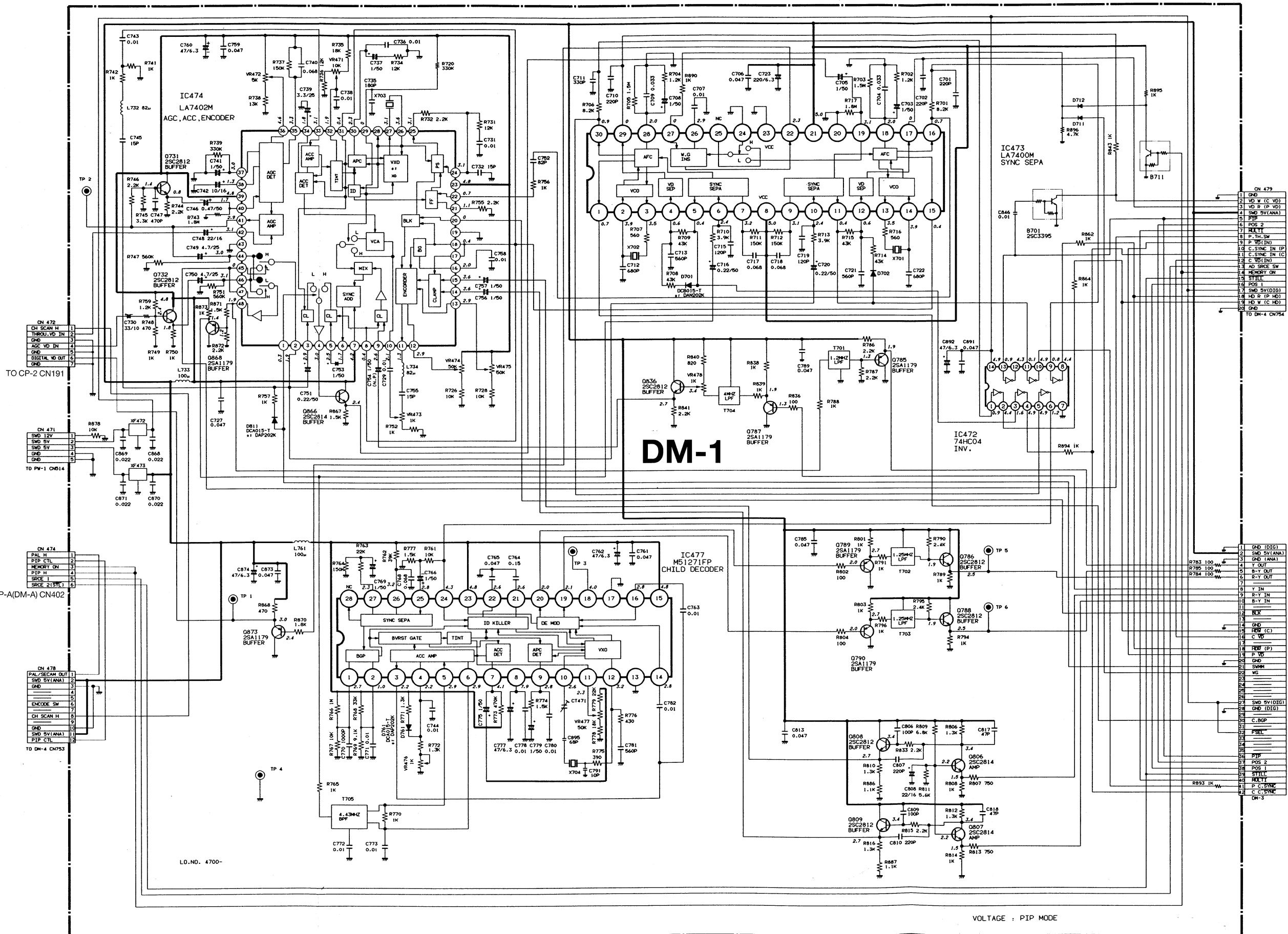


DM-1 ANALOG PROCESS FOR DIGITAL MEMORY



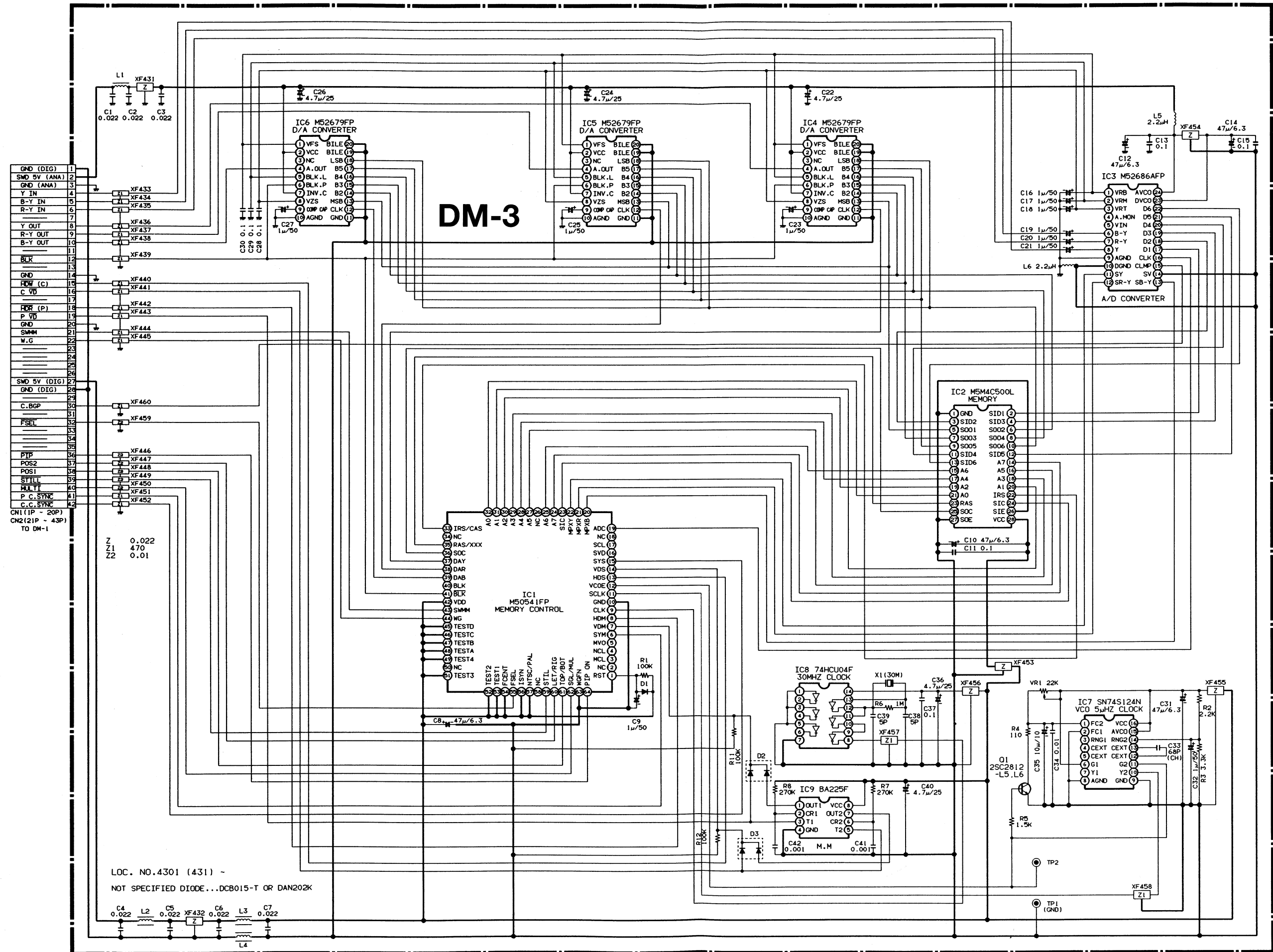
1	GND (DIG)
2	SND SV (ANA)
3	GND (ANA)
4	Y IN
5	B-Y IN
6	R-Y IN
7	Y OUT
8	R-Y OUT
9	B-Y OUT
10	BLK
11	GND
12	HOW (C)
13	C VB
14	FOR (P)
15	P VB
16	GND
17	SWMM
18	W.G
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DM-1 ANALOG PROCESS FOR DIGITAL MEMORY



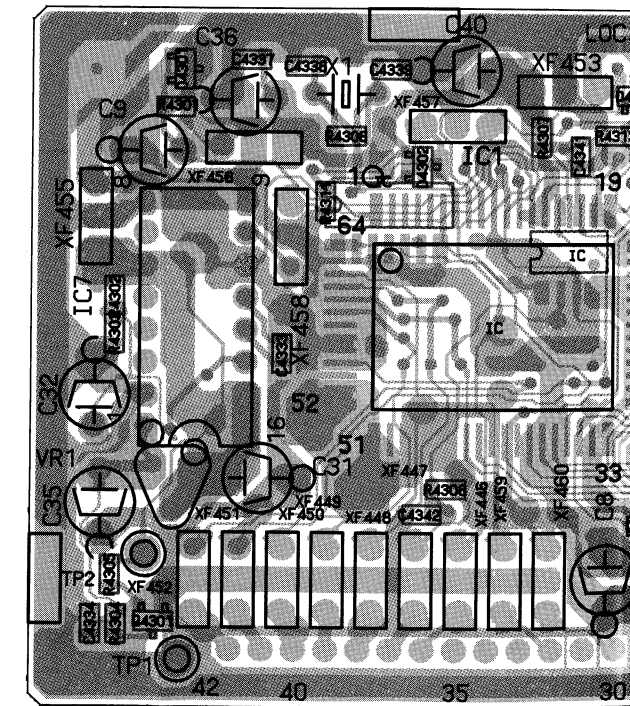
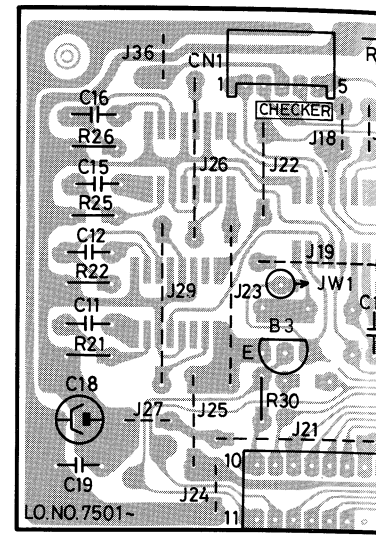
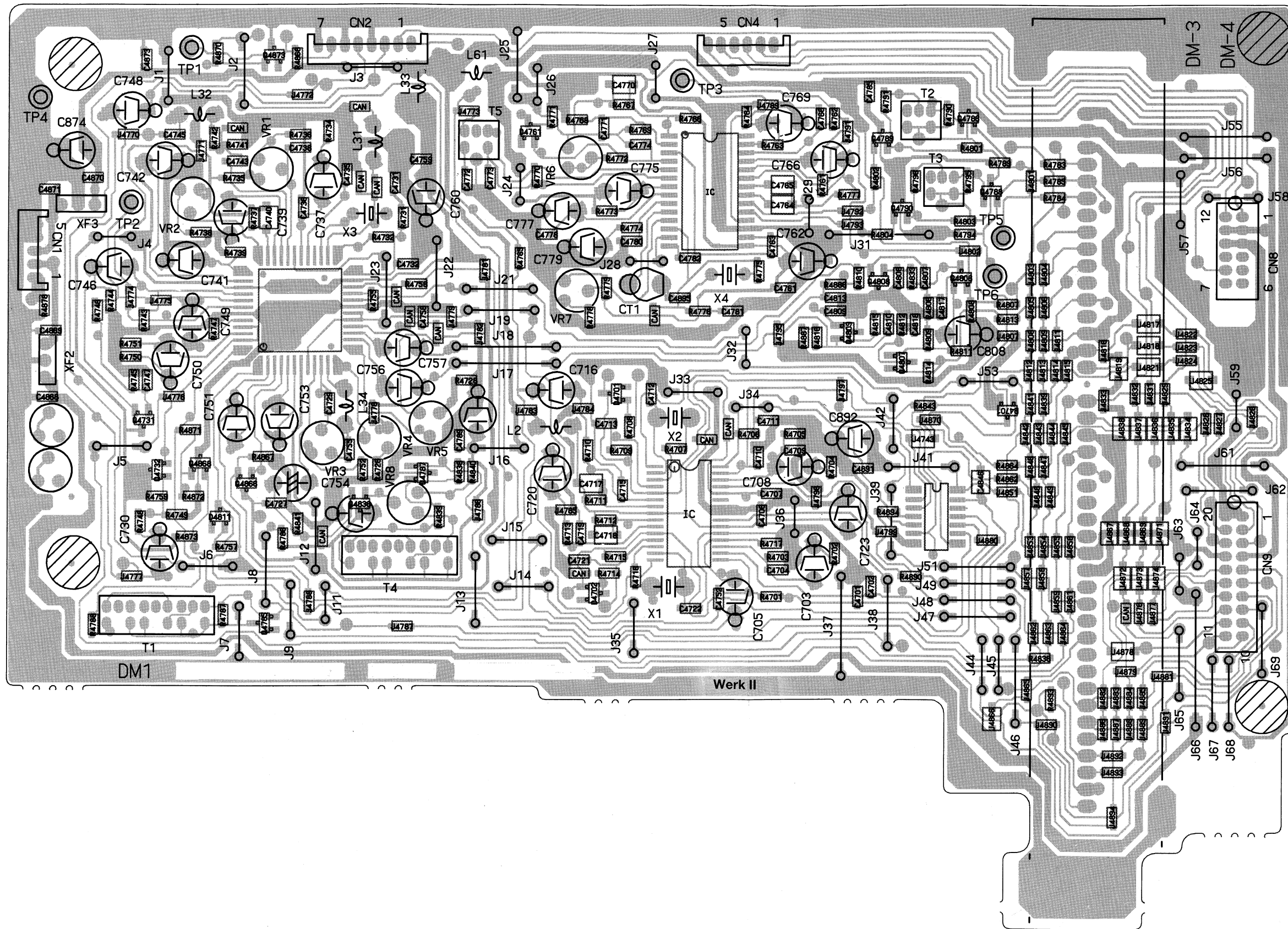
1	GND (DIG)
2	SND 5V (ANA)
3	GND (ANA)
4	Y IN
5	B-Y IN
6	R-Y IN
7	Y OUT
8	R-Y OUT
9	B-Y OUT
10	BLK
11	GND
12	HDW (C)
13	C VD
14	HDW (P)
15	P VD
16	GND
17	SWMM
18	W.G
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DM-3 DIGITAL MEMORY

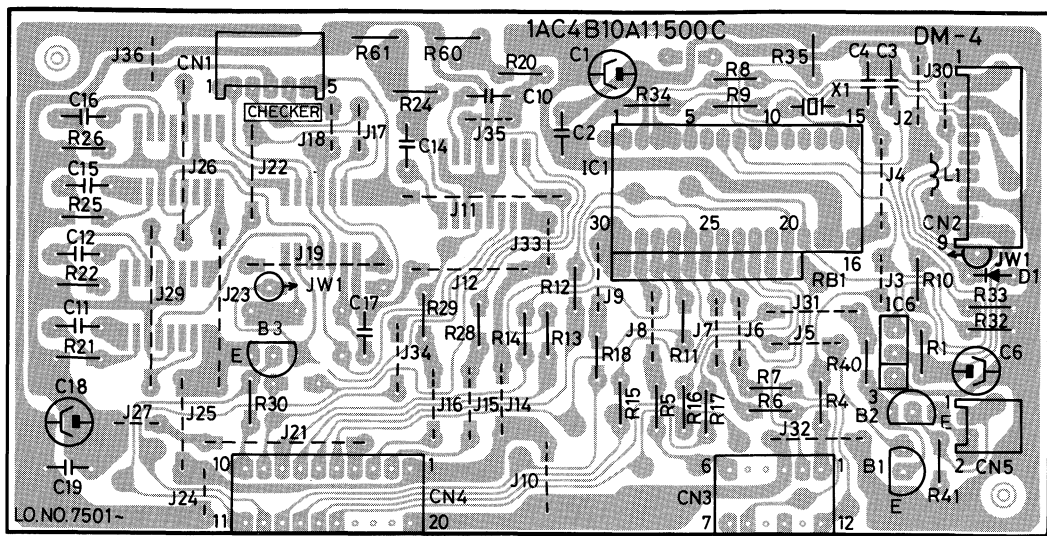


DM-1 ANALOG PROCESS FOR DIGITAL MEMORY P.C.B.

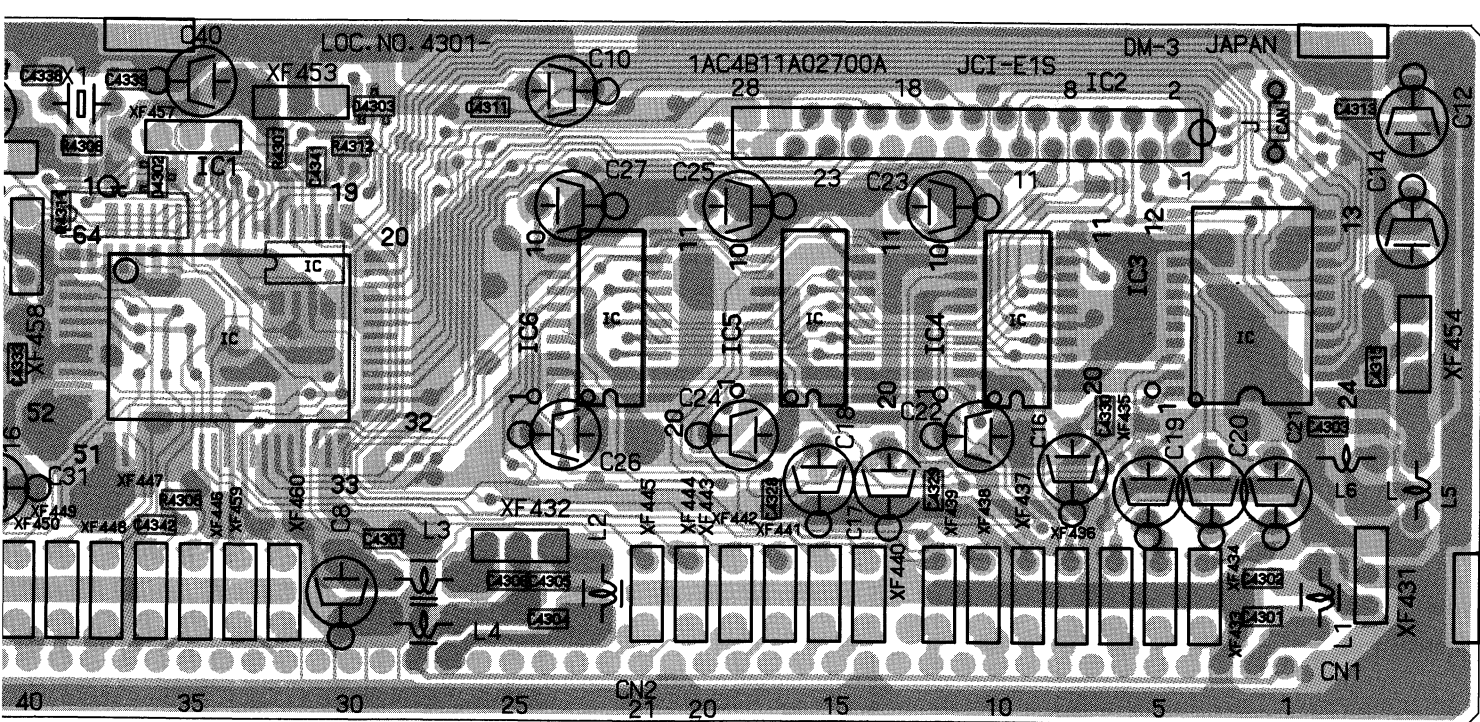
DM-4 DIG



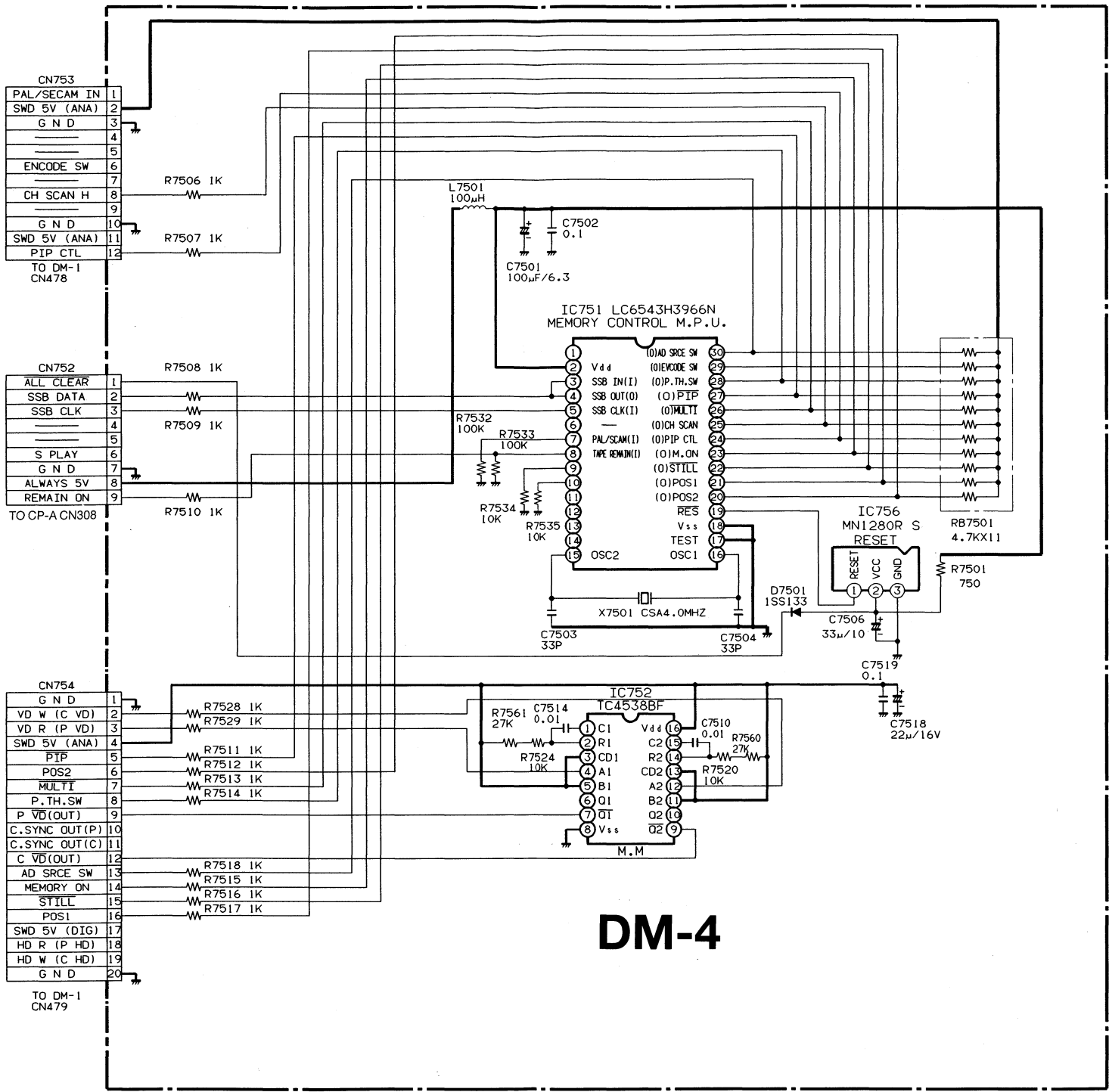
DM-4 DIGITAL MEMORY CONTROL P.C.B.



DM-3 DIGITAL MEMORY P.C.B.



COMPL. DM-4 DIGITAL MEMORY CONTROL CIRCUIT



Q
FM619 Q4
FM619 K4

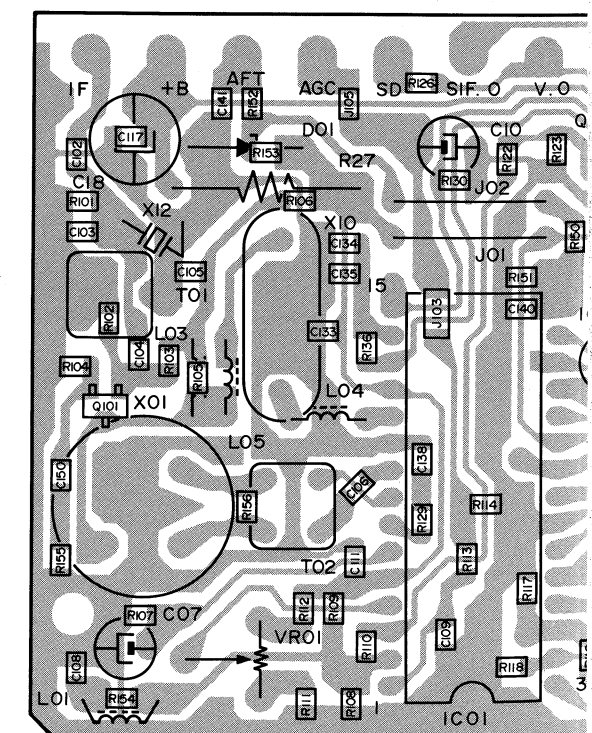
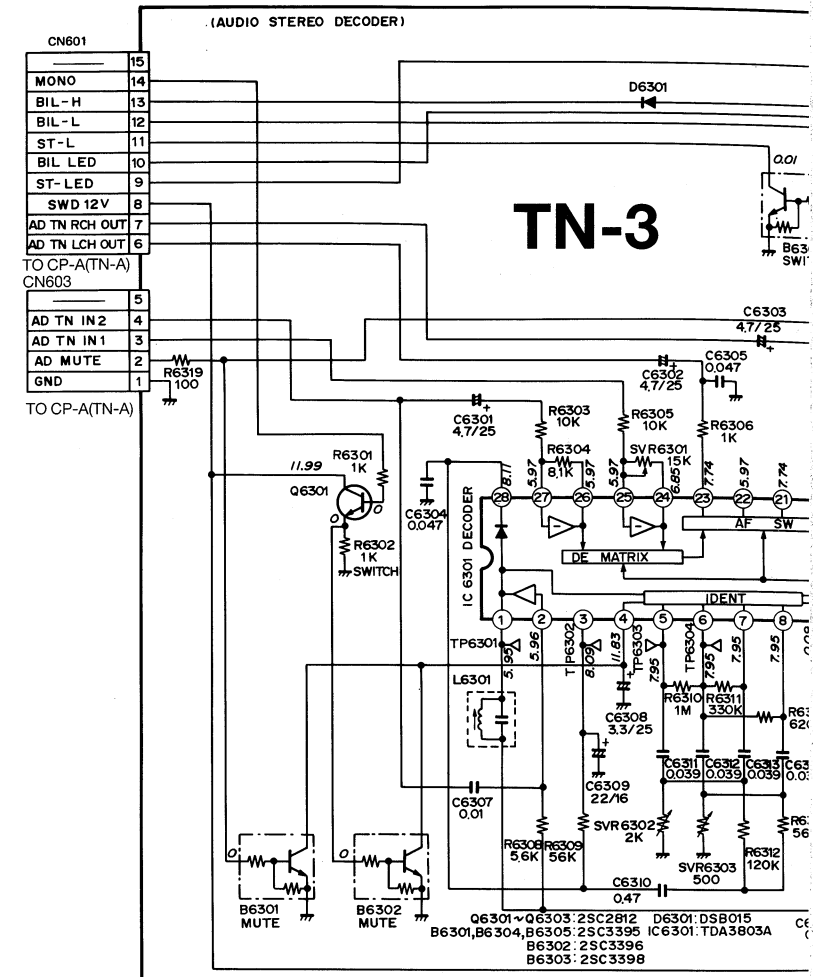
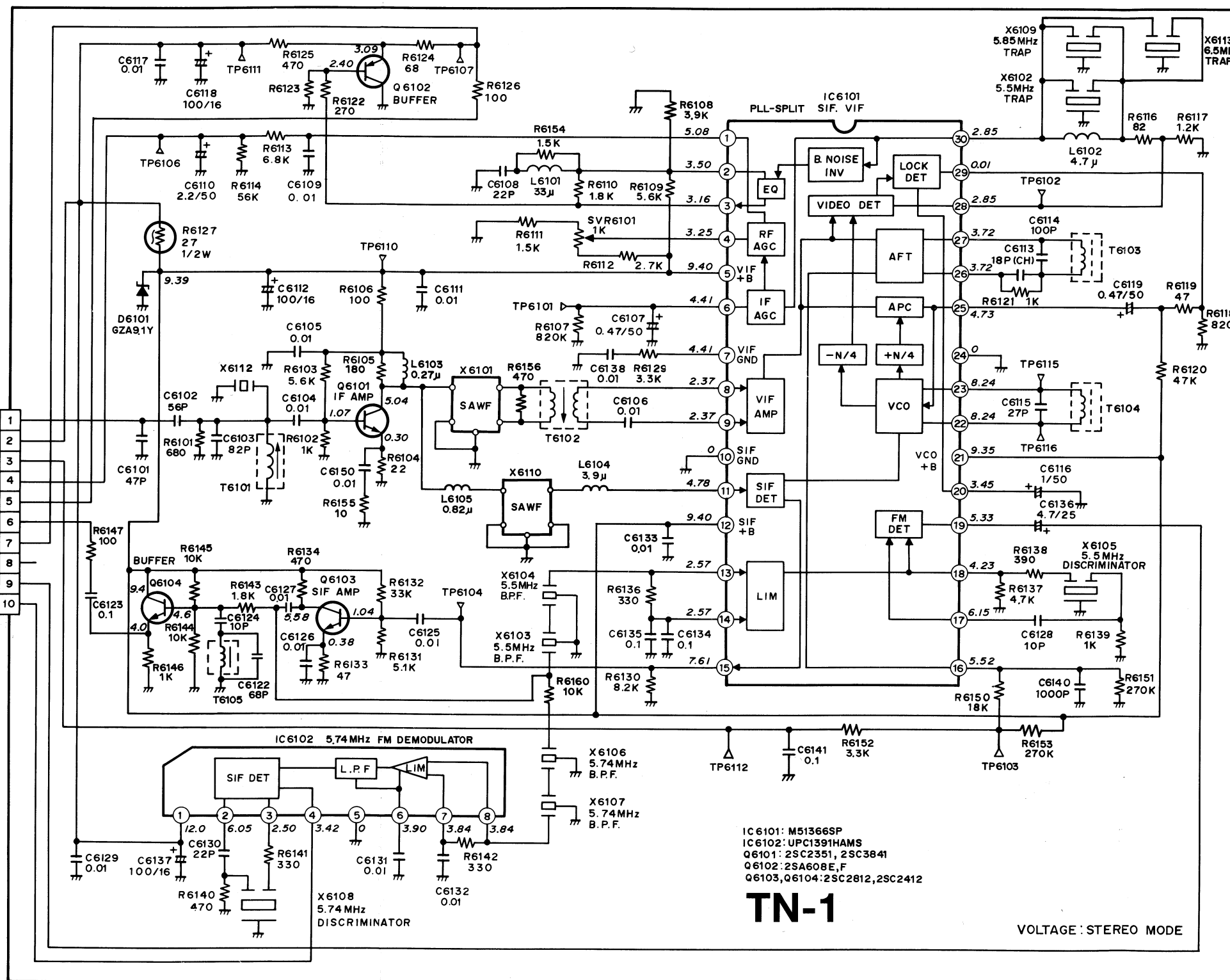
TN-1 ZF / IF

TN-3 AUDIO STEREO DECO

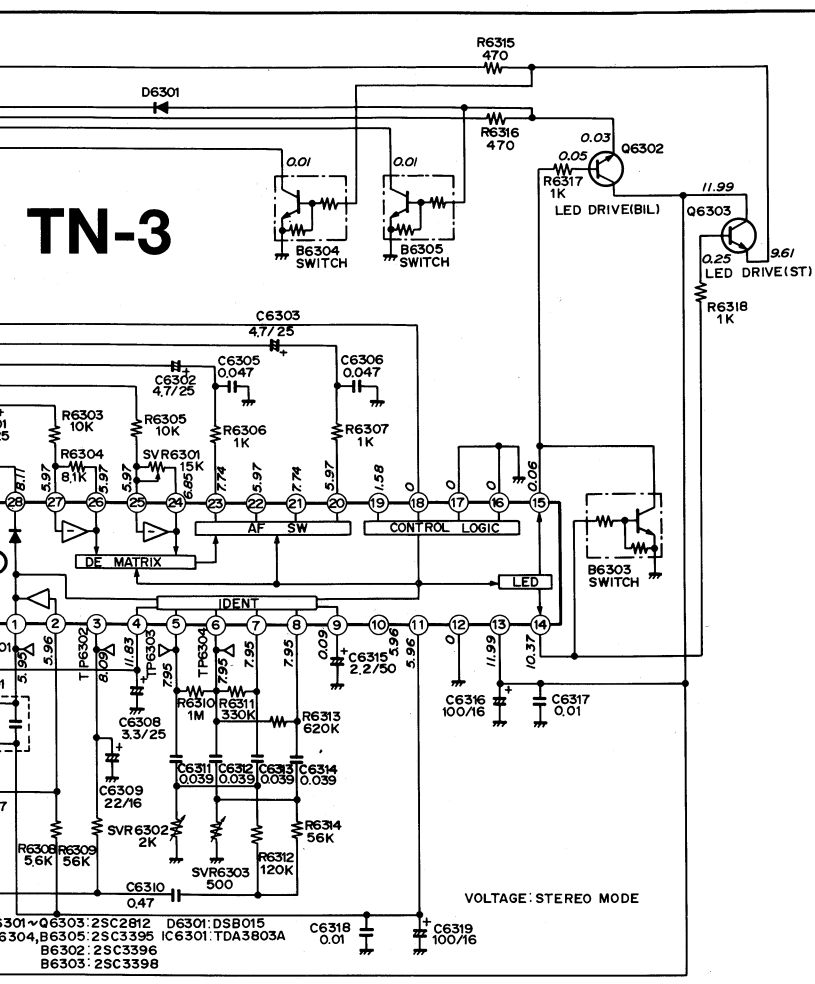
R
FM619 Q4
FM619 K4

CN6101		
IF	1	
STB 12V	2	
AFT -S	3	
AGC	4	
SYNC DET	5	
SIF OUT	6	
VD TN OUT	7	
AD TN OUT1	9	
AD TN OUT2	10	

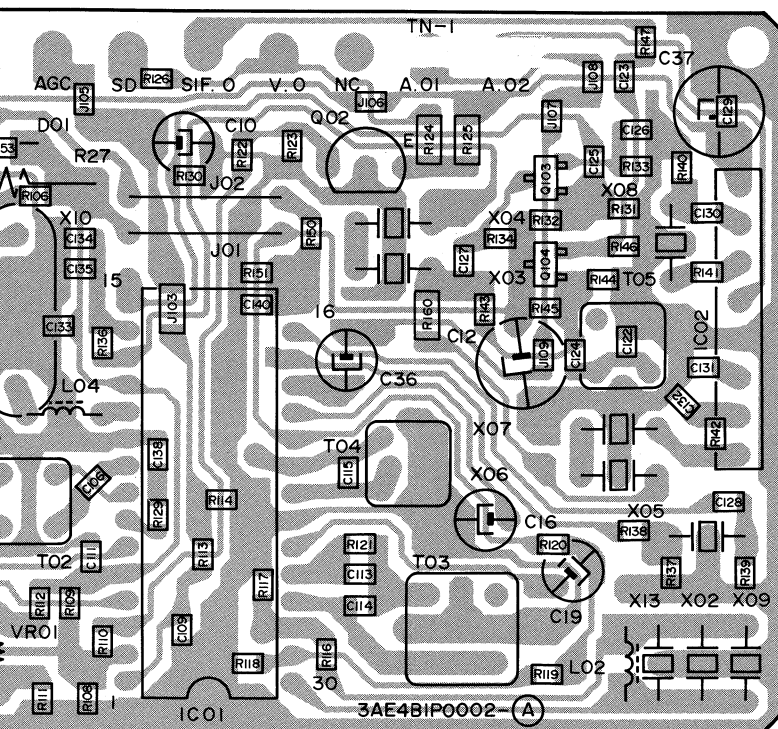
TO CP-A(TN-A)



TN-3



TN-1 ZFC IF P.C.B.



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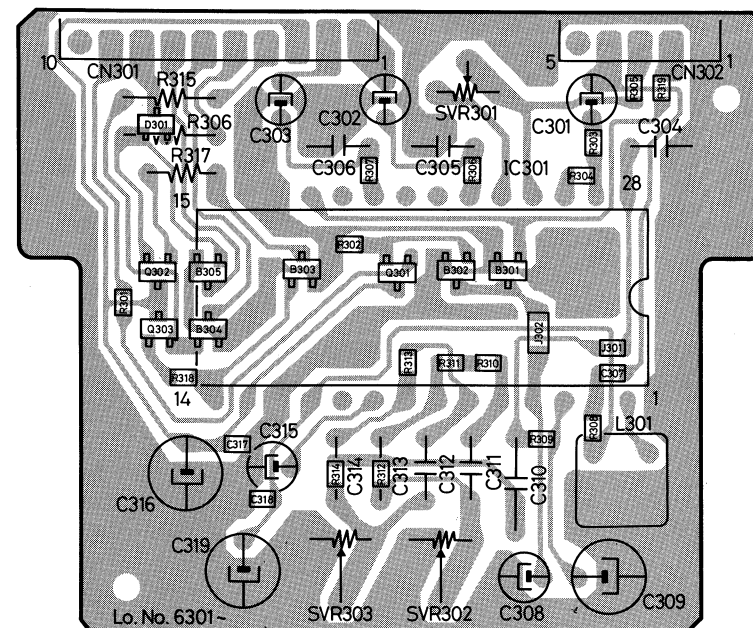
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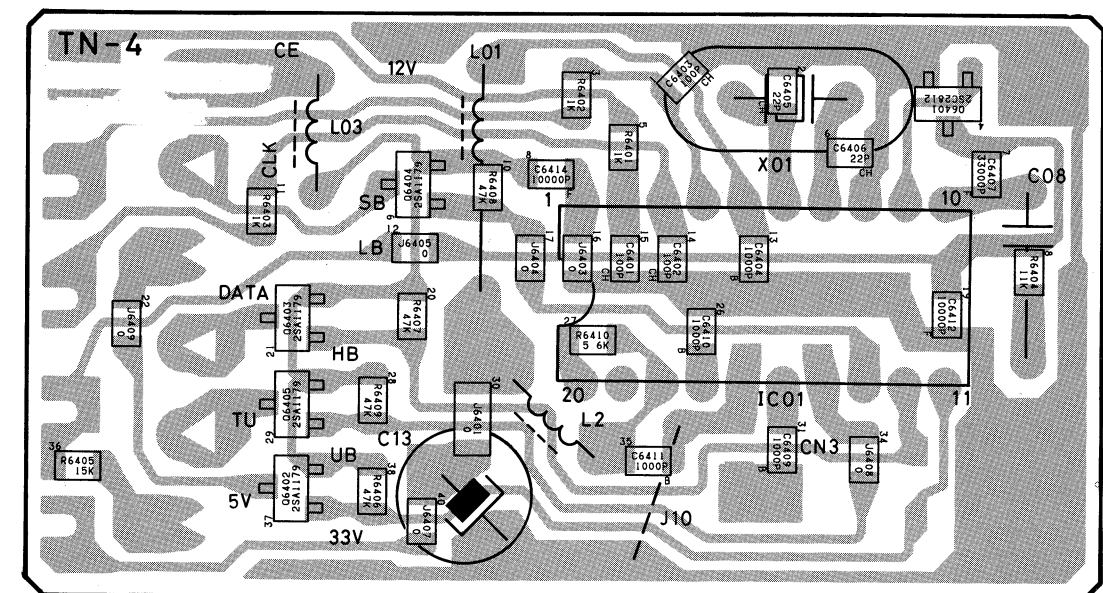
TN-4 PLL PACK

Pin NO.	NAME	DATA or FUNCTION
1	S 33V	32.3V DC
2	UB	When 12V, tunings 21~49 CH
3	HB	When 12V, tunings S ₁ ~S ₁₀ , 5~12 CH
4	LB	When 12V, tunings 2~4, X, Y, Z CH
5	SB	When 12V, tunings S ₁₁ ~S ₂₀ CH
6	12V	12.1V DC
7	S 5V	4.8V DC
8	TU	0~30V DC Tuning Voltage
9	DATA	4.8Vp-p
10	CLK	Serial Data
11	CE	between Timer M.P.U.

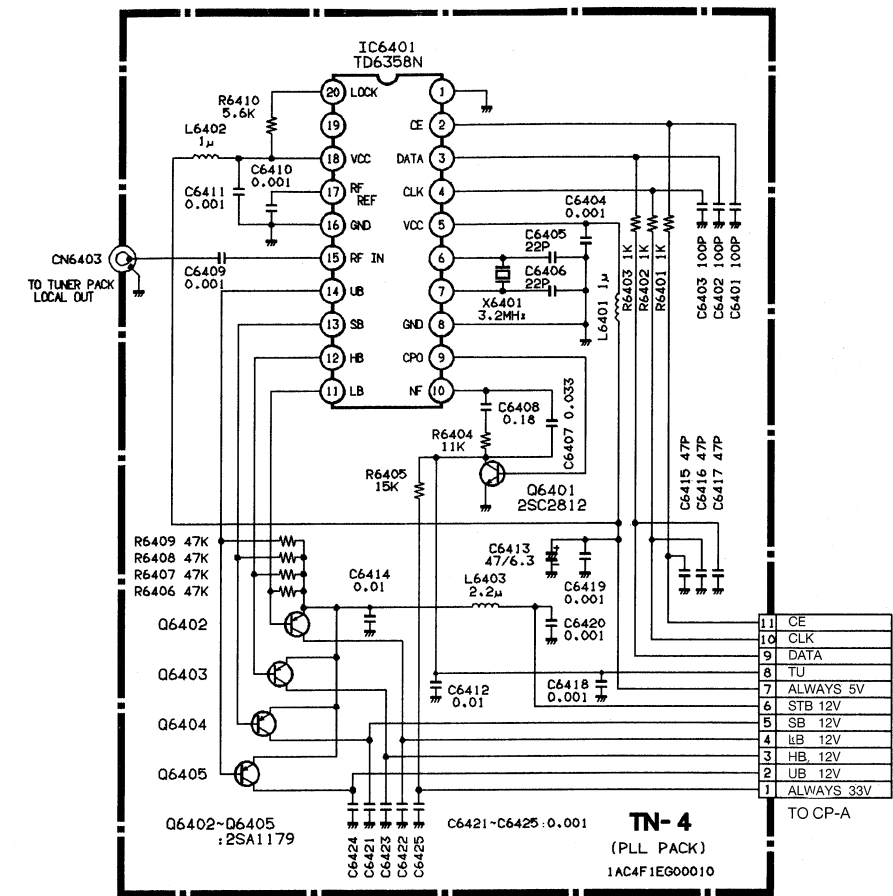
TN-3 AUDIO STEREO DECODER P.C.B.



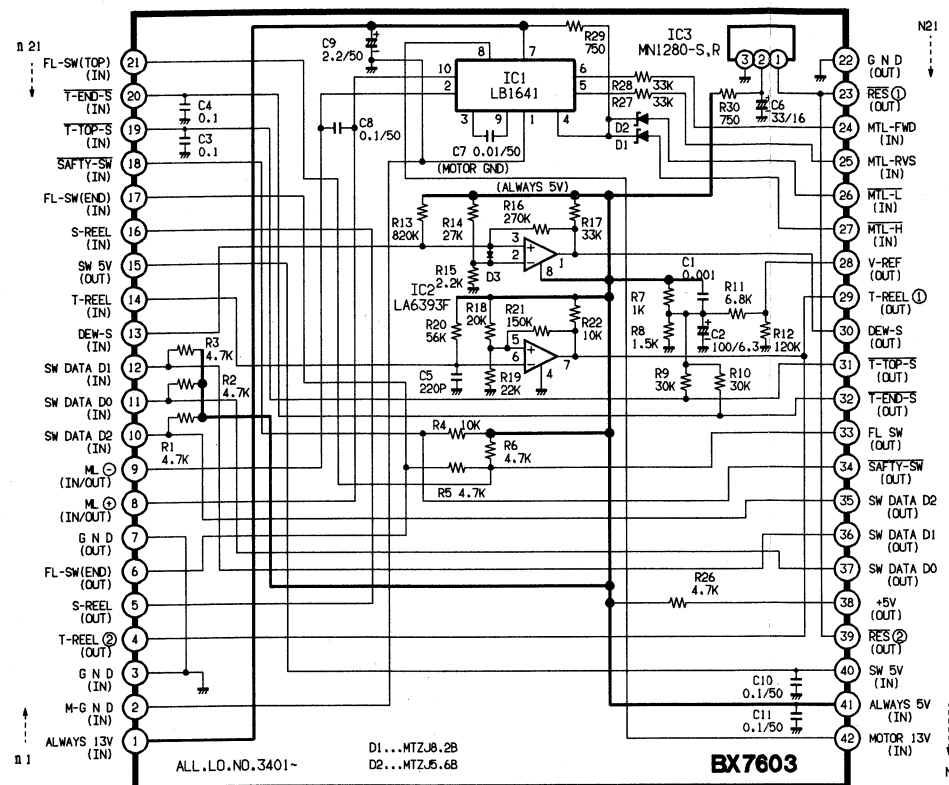
TN-4 PLL P.C.B.



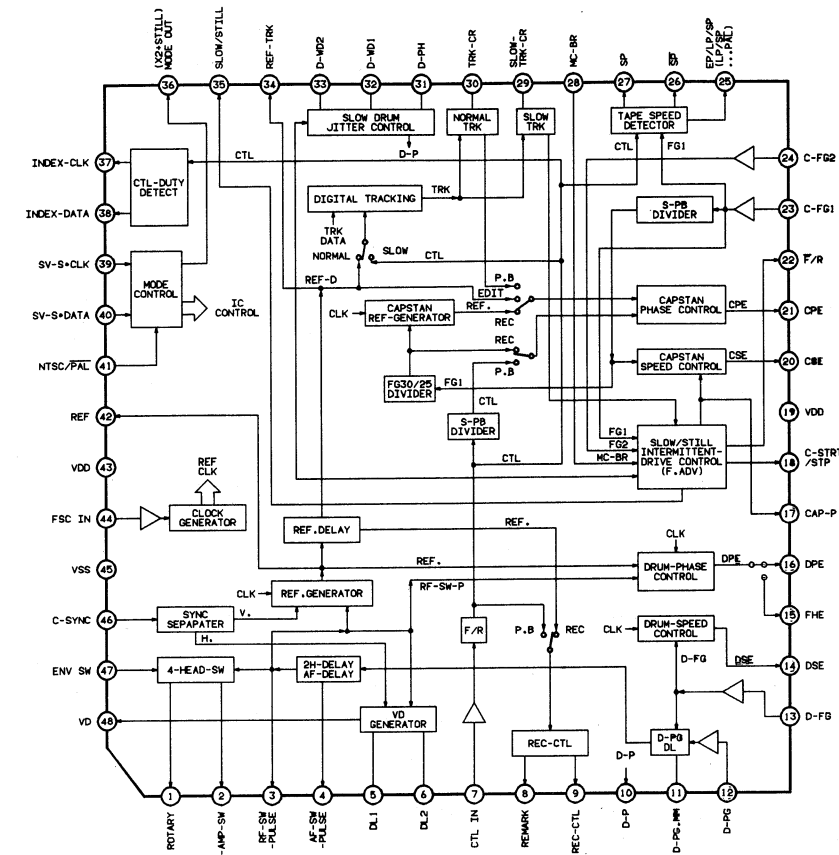
TN-4 PLL



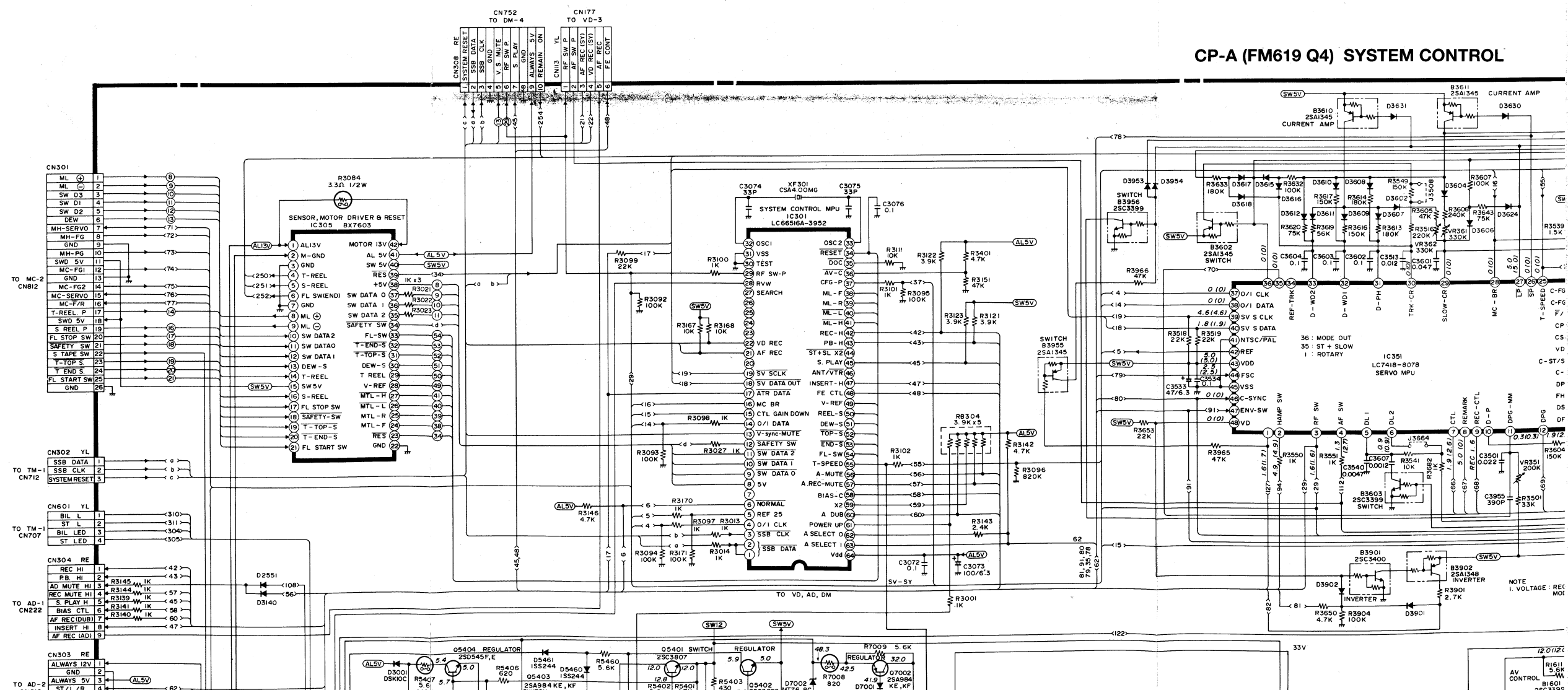
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IC351 (LC7418) DIGITAL SERVO IC. INTER BLOCK DIAGRAM



CP-A (FM619 Q4) SYSTEM CONTROL



SW5V

B3610
2SA1345
CURRENT AMP

D3631

B3611
2SA1345
CURRENT AMP

D3630

CURRENT AMP

B3201
2SC3399
SWITCH

C3201
22/6.3

R3201
180K

R3634
12K

R3514
150K

R3512
33K

R3510
0.0068

R3511
150K

R3513
27K

R3515
250/1920
Q. H. S.

R3516
22K

R3517
100K

R3518
22/6.3

R3519
47K

R3520
47K

R3521
0.0015

R3522
47K

R3523
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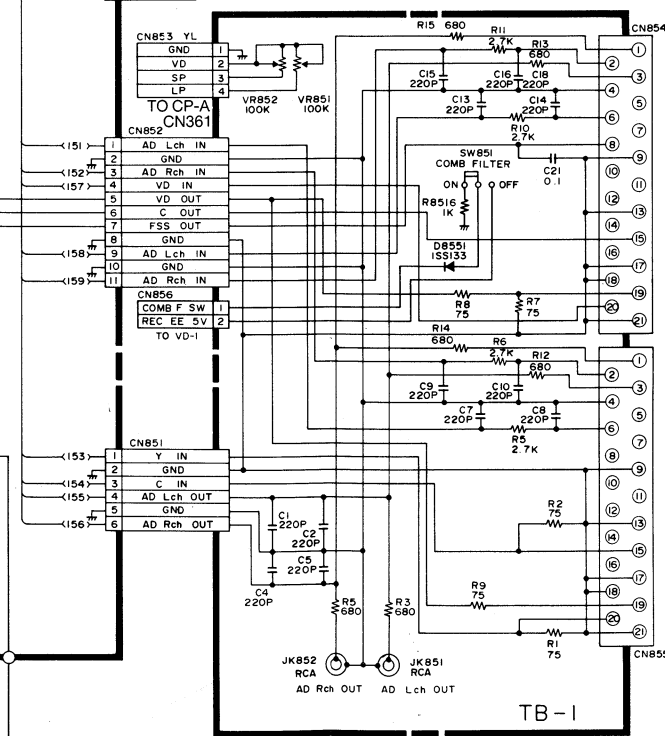
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R3759
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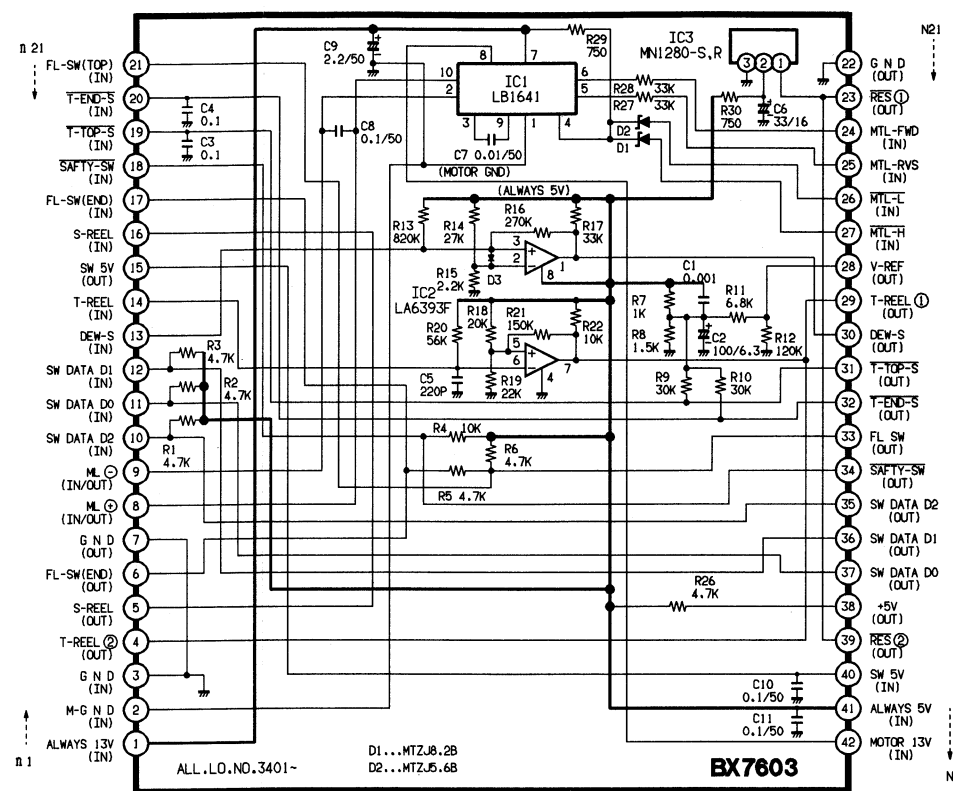




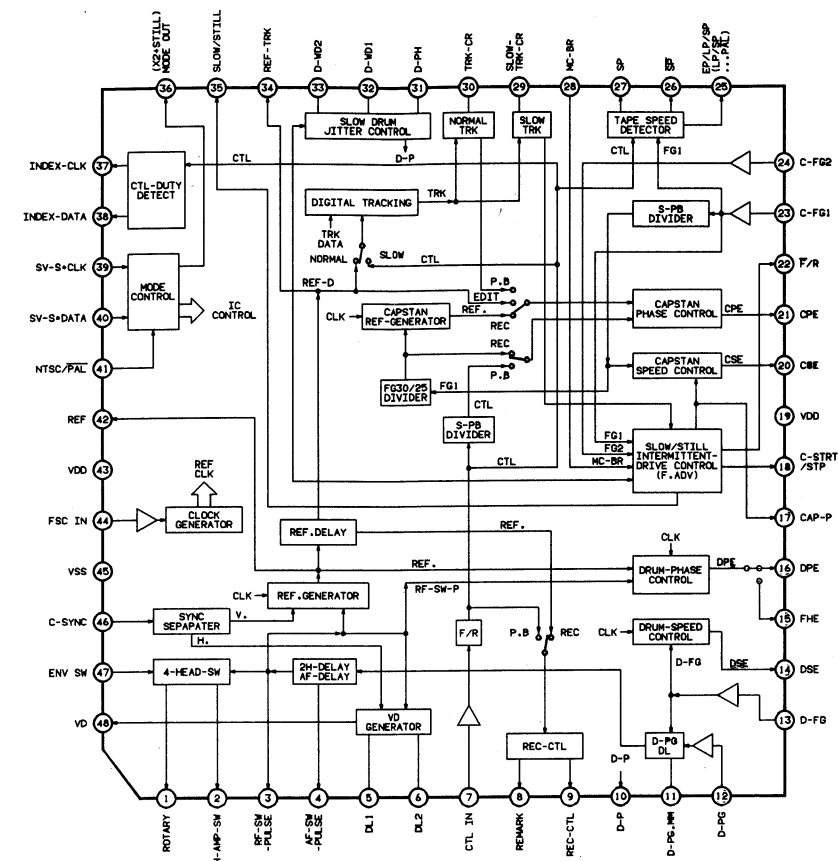
TB-1



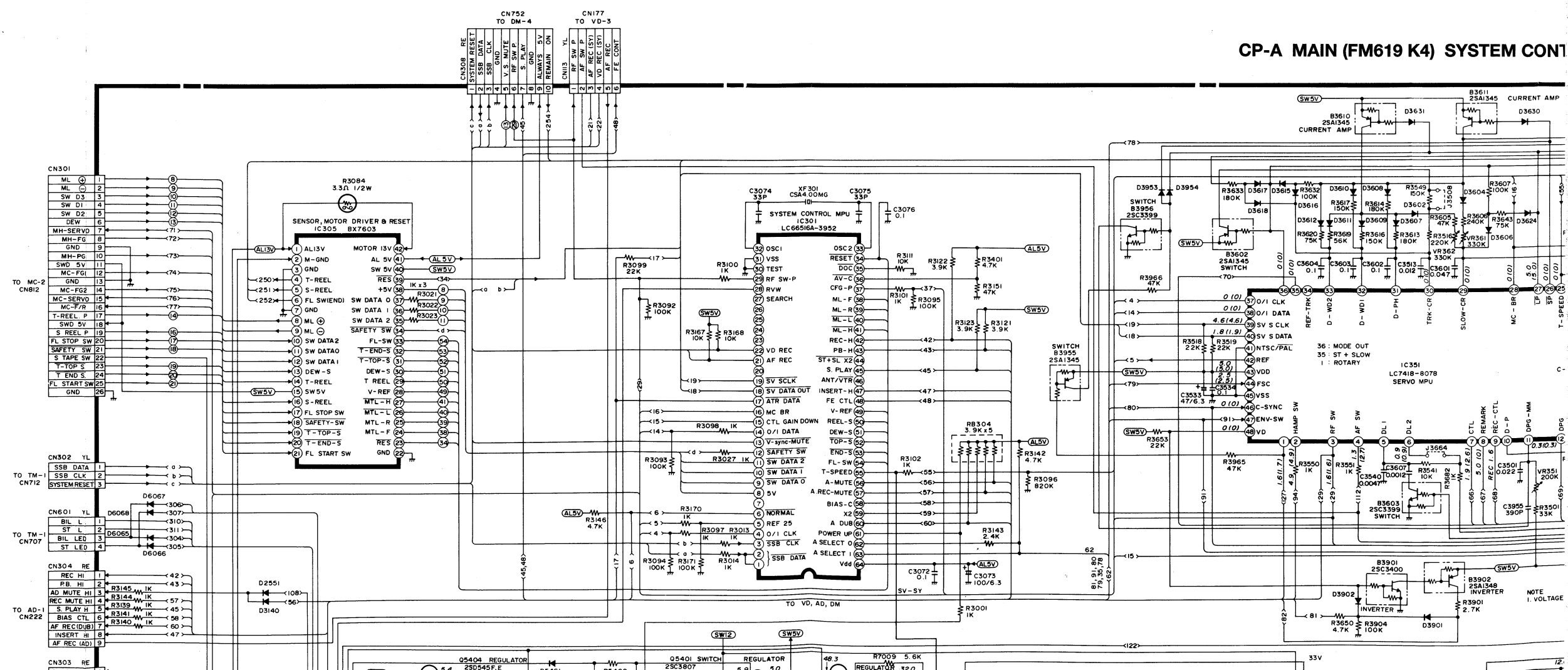
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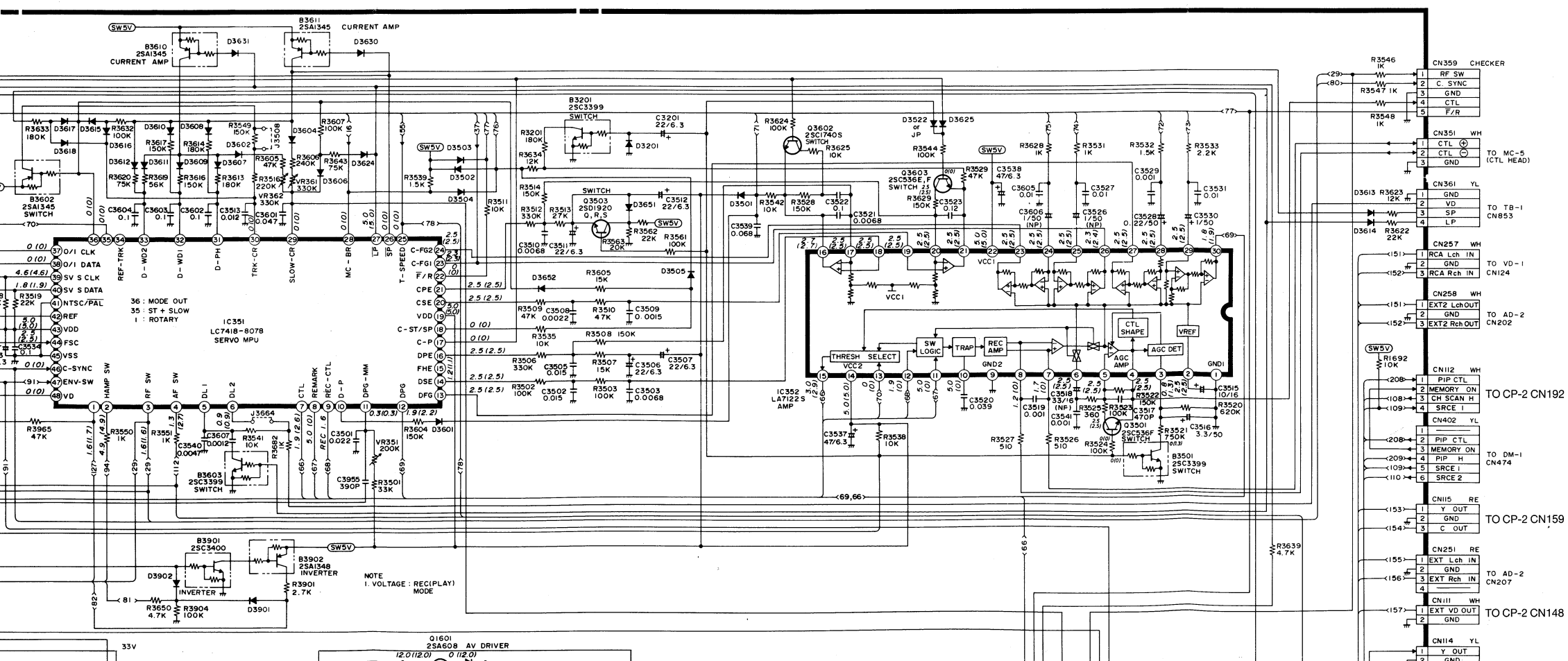
IC351 (LC7418) DIGITAL SERVO IC. INTER BLOCK DIAGRAM



CP-A MAIN (FM619 K4) SYSTEM CONT

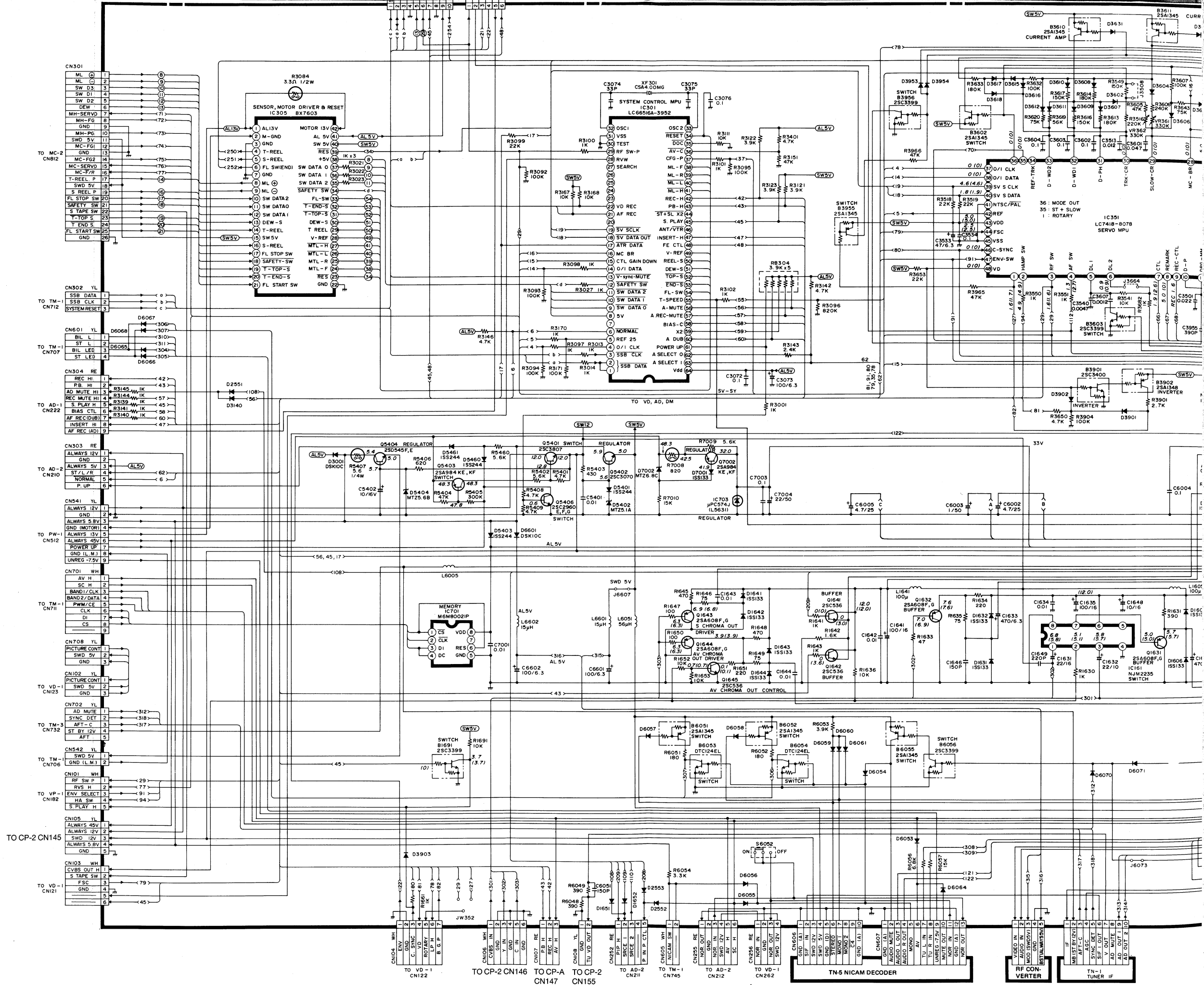


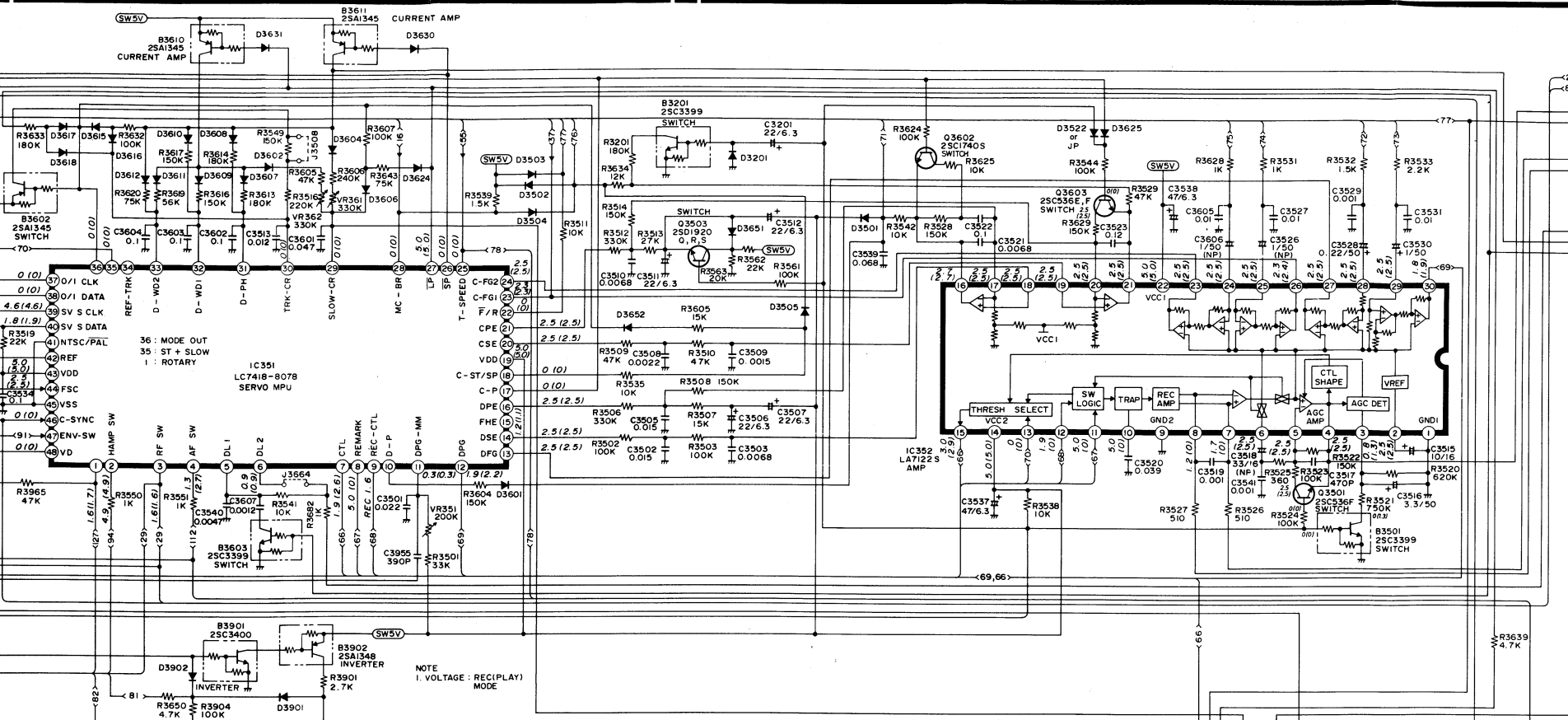
CP-A MAIN (FM619 K4) SYSTEM CONTROL



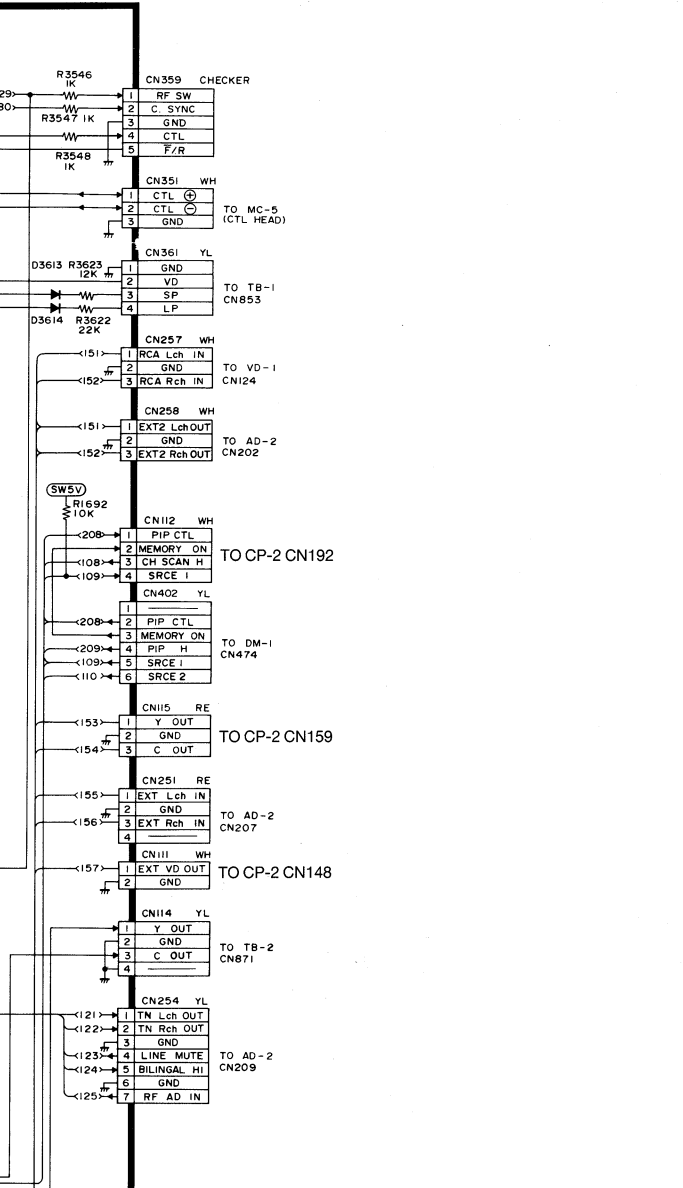
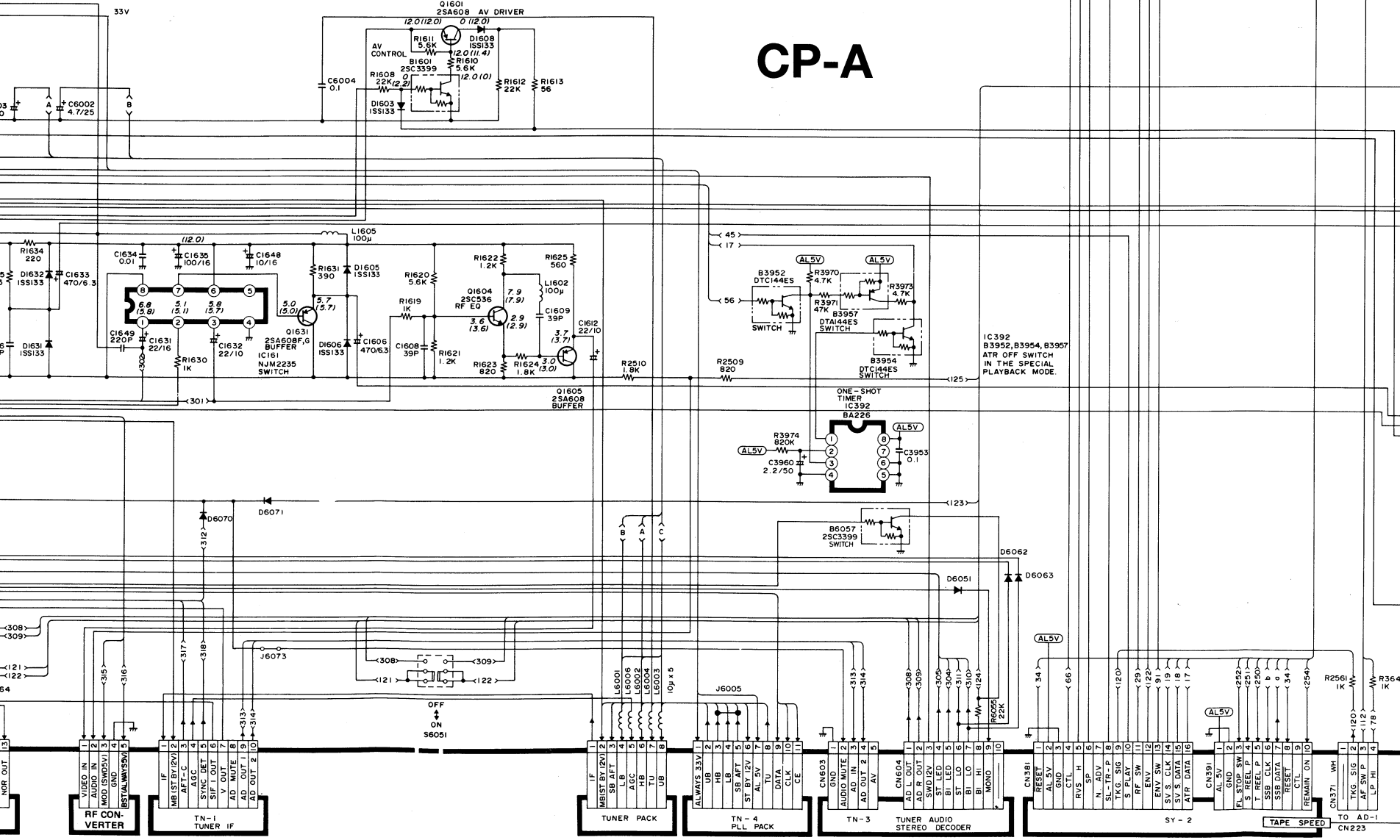
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FM619 Q4
FM619 K4

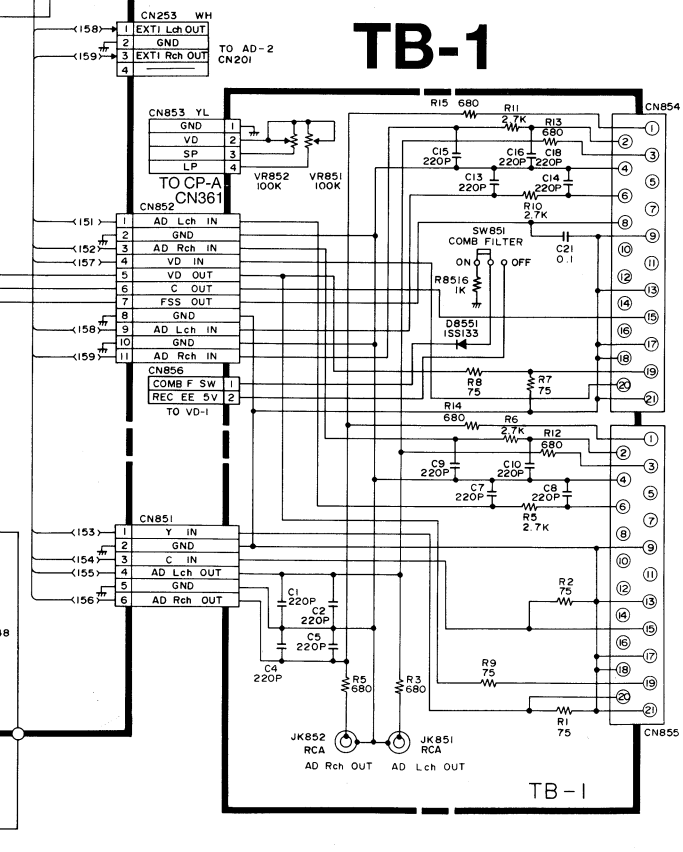




CP-A

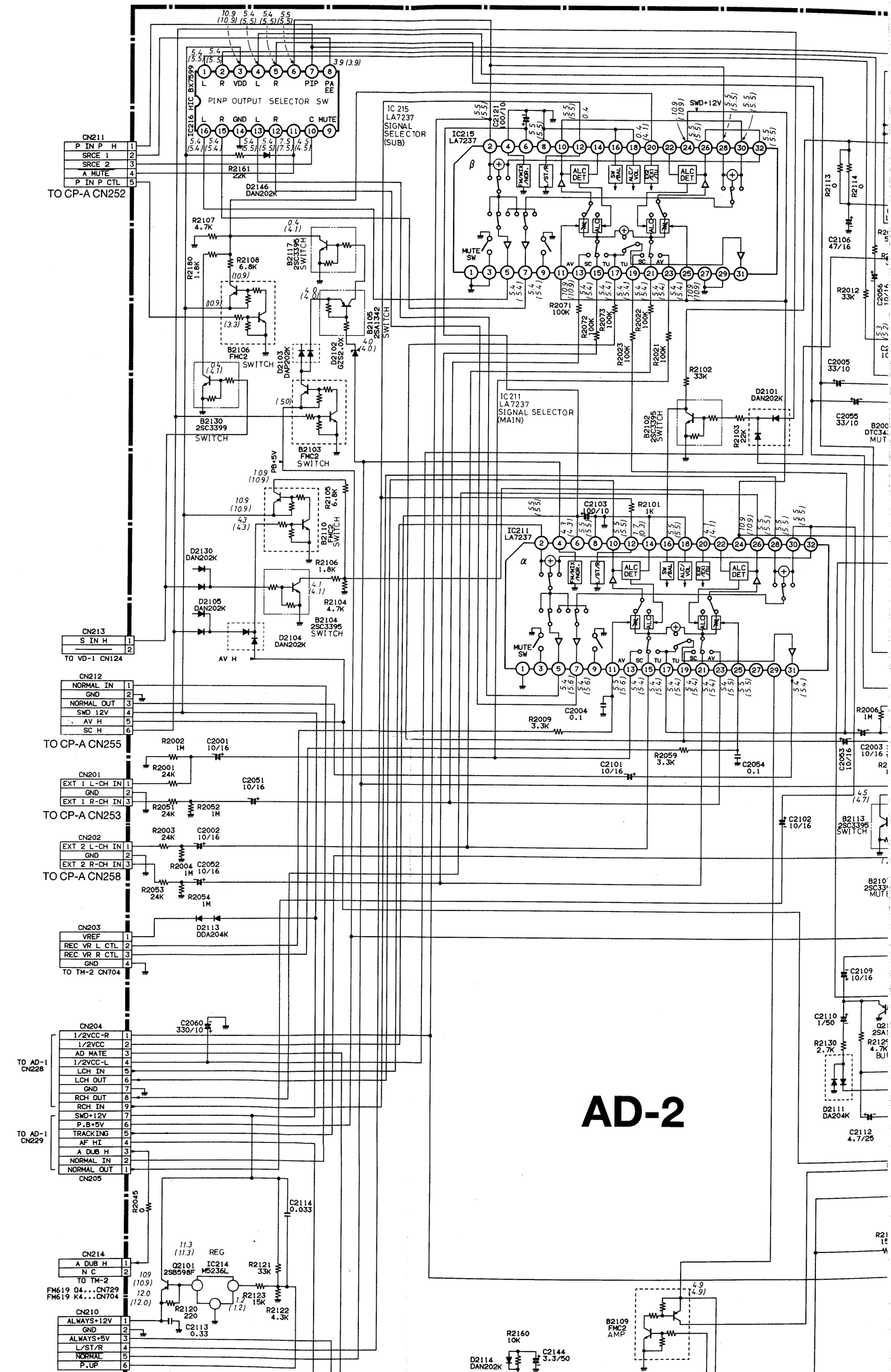
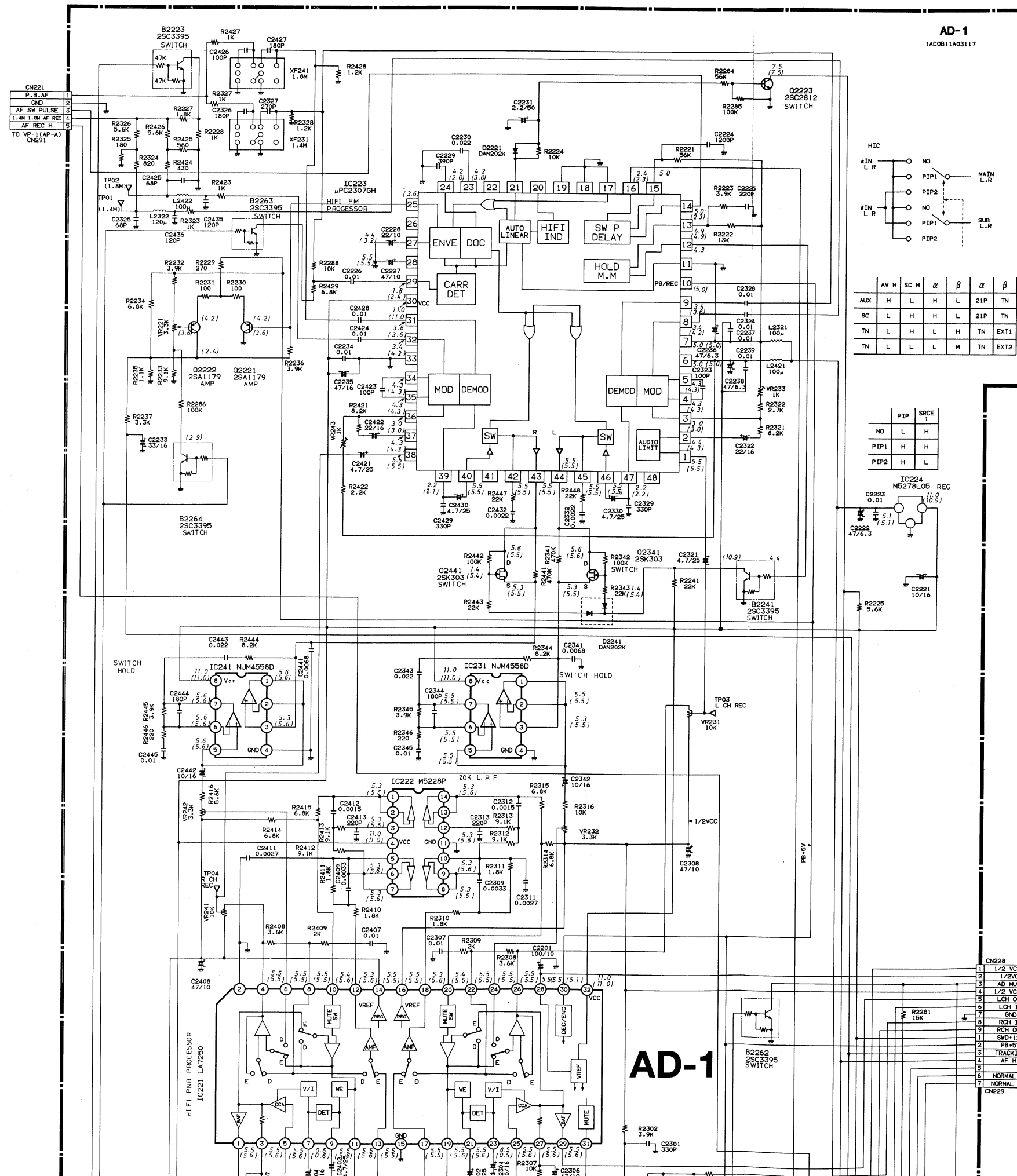


TB-1



AD-1 AUDIO HI-FI DEMODULATOR/NORMAL AUDIO

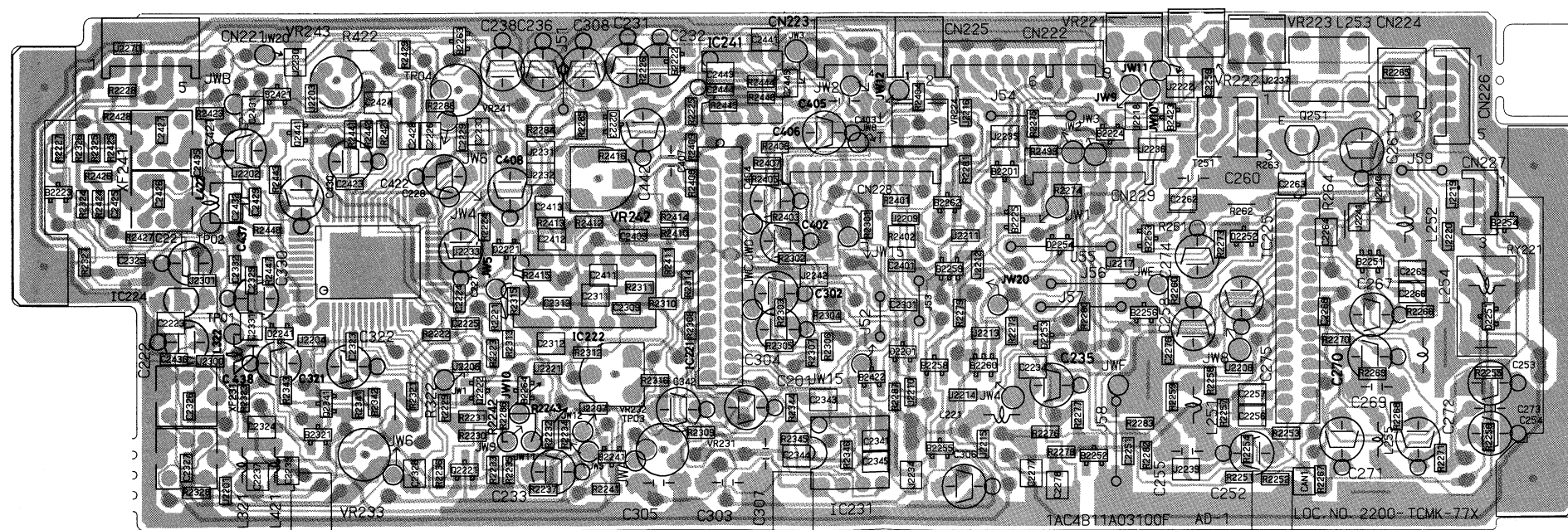
AD-2 AUDIO INPUT/OUTPUT SIGNAL SELECT



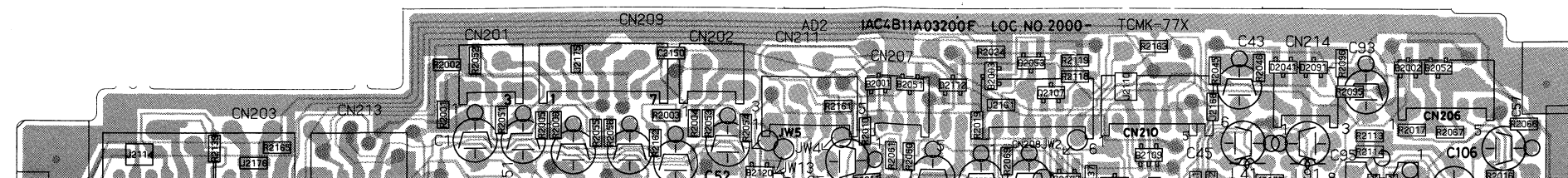
The schematic diagram for the AD-2 circuit is a complex electronic design. It features a central section with two integrated circuits, IC213 (NM4556D) and IC212 (M5222P), which serve as the HEAD PHONE AMP and HEAD PHONE VOLUME controls, respectively. These are surrounded by various passive components like resistors (R2001, R2002, R2003, R2004, R2005, R2006, R2007, R2008, R2009, R2010, R2011, R2012, R2013, R2014, R2015, R2016, R2017, R2018, R2019, R2020, R2021, R2022, R2023, R2024, R2025, R2026, R2027, R2028, R2029, R2030, R2031, R2032, R2033, R2034, R2035, R2036, R2037, R2038, R2039, R2040, R2041, R2042, R2043, R2044, R2045, R2046, R2047, R2048, R2049, R2050, R2051, R2052, R2053, R2054, R2055, R2056, R2057, R2058, R2059, R2060, R2061, R2062, R2063, R2064, R2065, R2066, R2067, R2068, R2069, R2070, R2071, R2072, R2073, R2074, R2075, R2076, R2077, R2078, R2079, R2080, R2081, R2082, R2083, R2084, R2085, R2086, R2087, R2088, R2089, R2090, R2091, R2092, R2093, R2094, R2095, R2096, R2097, R2098, R2099, R2100, R2101, R2102, R2103, R2104, R2105, R2106, R2107, R2108, R2109, R2110, R2111, R2112, R2113, R2114, R2115, R2116, R2117, R2118, R2119, R2120, R2121, R2122, R2123, R2124, R2125, R2126, R2127, R2128, R2129, R2130, R2131, R2132, R2133, R2134, R2135, R2136, R2137, R2138, R2139, R2140, R2141, R2142, R2143, R2144, R2145, R2146, R2147, R2148, R2149, R2150, R2151, R2152, R2153, R2154, R2155, R2156, R2157, R2158, R2159, R2160, R2161, R2162, R2163, R2164, R2165, R2166, R2167, R2168, R2169, R2170, R2171, R2172, R2173, R2174, R2175, R2176, R2177, R2178, R2179, R2180, R2181, R2182, R2183, R2184, R2185, R2186, R2187, R2188, R2189, R2190, R2191, R2192, R2193, R2194, R2195, R2196, R2197, R2198, R2199, R2200, R2201, R2202, R2203, R2204, R2205, R2206, R2207, R2208, R2209, R2210, R2211, R2212, R2213, R2214, R2215, R2216, R2217, R2218, R2219, R2220, R2221, R2222, R2223, R2224, R2225, R2226, R2227, R2228, R2229, R2230, R2231, R2232, R2233, R2234, R2235, R2236, R2237, R2238, R2239, R2240, R2241, R2242, R2243, R2244, R2245, R2246, R2247, R2248, R2249, R2250, R2251, R2252, R2253, R2254, R2255, R2256, R2257, R2258, R2259, R2260, R2261, R2262, R2263, R2264, R2265, R2266, R2267, R2268, R2269, R2270, R2271, R2272, R2273, R2274, R2275, R2276, R2277, R2278, R2279, R2280, R2281, R2282, R2283, R2284, R2285, R2286, R2287, R2288, R2289, R2290, R2291, R2292, R2293, R2294, R2295, R2296, R2297, R2298, R2299, R2300, R2301, R2302, R2303, R2304, R2305, R2306, R2307, R2308, R2309, R2310, R2311, R2312, R2313, R2314, R2315, R2316, R2317, R2318, R2319, R2320, R2321, R2322, R2323, R2324, R2325, R2326, R2327, R2328, R2329, R2330, R2331, R2332, R2333, R2334, R2335, R2336, R2337, R2338, R2339, R2340, R2341, R2342, R2343, R2344, R2345, R2346, R2347, R2348, R2349, R2350, R2351, R2352, R2353, R2354, R2355, R2356, R2357, R2358, R2359, R2360, R2361, R2362, R2363, R2364, R2365, R2366, R2367, R2368, R2369, R2370, R2371, R2372, R2373, R2374, R2375, R2376, R2377, R2378, R2379, R2380, R2381, R2382, R2383, R2384, R2385, R2386, R2387, R2388, R2389, R2390, R2391, R2392, R2393, R2394, R2395, R2396, R2397, R2398, R2399, R2400, R2401, R2402, R2403, R2404, R2405, R2406, R2407, R2408, R2409, R2410, R2411, R2412, R2413, R2414, R2415, R2416, R2417, R2418, R2419, R2420, R2421, R2422, R2423, R2424, R2425, R2426, R2427, R2428, R2429, R2430, R2431, R2432, R2433, R2434, R2435, R2436, R2437, R2438, R2439, R2440, R2441, R2442, R2443, R2444, R2445, R2446, R2447, R2448, R2449, R2450, R2451, R2452, R2453, R2454, R2455, R2456, R2457, R2458, R2459, R2460, R2461, R2462, R2463, R2464, R2465, R2466, R2467, R2468, R2469, R2470, R2471, R2472, R2473, R2474, R2475, R2476, R2477, R2478, R2479, R2480, R2481, R2482, R2483, R2484, R2485, R2486, R2487, R2488, R2489, R2490, R2491, R2492, R2493, R2494, R2495, R2496, R2497, R2498, R2499, R2500, R2501, R2502, R2503, R2504, R2505, R2506, R2507, R2508, R2509, R2510, R2511, R2512, R2513, R2514, R2515, R2516, R2517, R2518, R2519, R2520, R2521, R2522, R2523, R2524, R2525, R2526, R2527, R2528, R2529, R2530, R2531, R2532, R2533, R2534, R2535, R2536, R2537, R2538, R2539, R2540, R2541, R2542, R2543, R2544, R2545, R2546, R2547, R2548, R2549, R2550, R2551, R2552, R2553, R2554, R2555, R2556, R2557, R2558, R2559, R2560, R2561, R2562, R2563, R2564, R2565, R2566, R2567, R2568, R2569, R2570, R2571, R2572, R2573, R2574, R2575, R2576, R2577, R2578, R2579, R2580, R2581, R2582, R2583, R2584, R2585, R2586, R2587, R2588, R2589, R2590, R2591, R2592, R2593, R2594, R2595, R2596, R2597, R2598, R2599, R2600, R2601, R2602, R2603, R2604, R2605, R2606, R2607, R2608, R2609, R2610, R2611, R2612, R2613, R2614, R2615, R2616, R2617, R2618, R2619, R2620, R2621, R2622, R2623, R2624, R2625, R2626, R2627, R2628, R2629, R2630, R2631, R2632, R2633, R2634, R2635, R2636, R2637, R2638, R2639, R2640, R2641, R2642, R2643, R2644, R2645, R2646, R2647, R2648, R2649, R2650, R2651, R2652, R2653, R2654, R2655, R2656, R2657, R2658, R2659, R2660, R2661, R2662, R26

AD-2

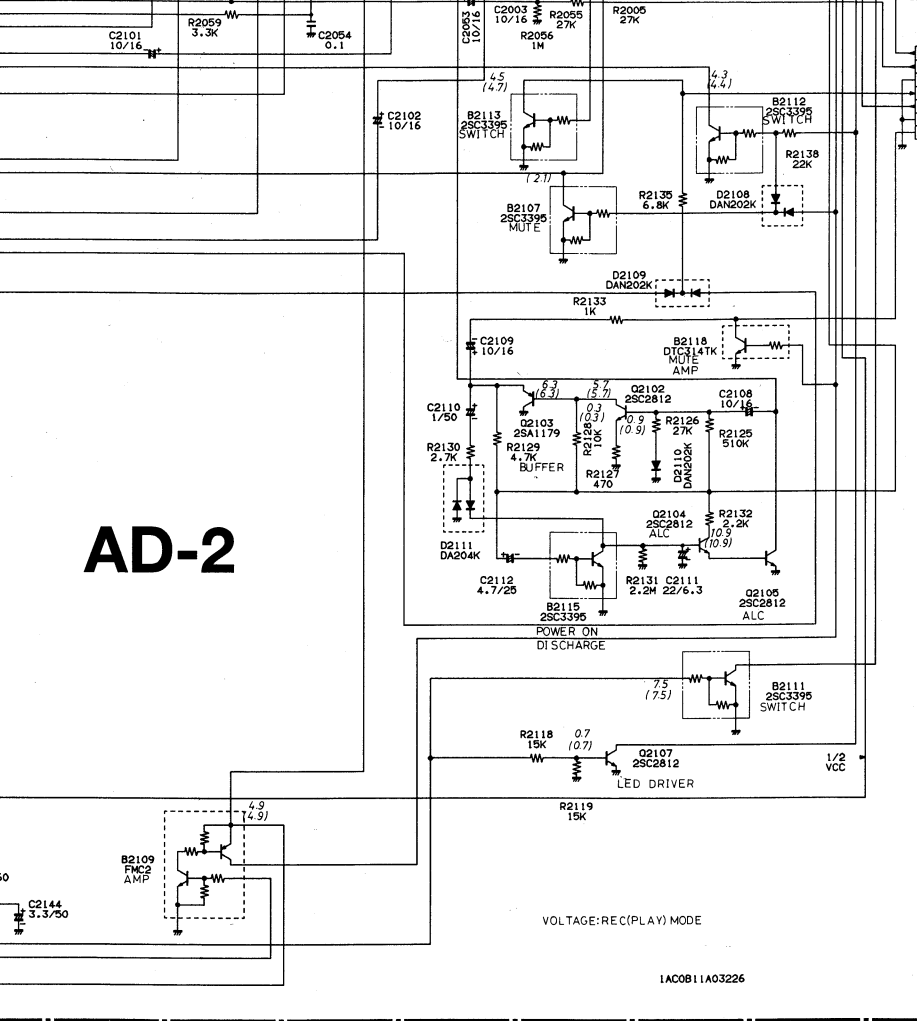
AD-1 AUDIO Hi-Fi DEMODULATOR/NORMAL AUDIO P.C.B.



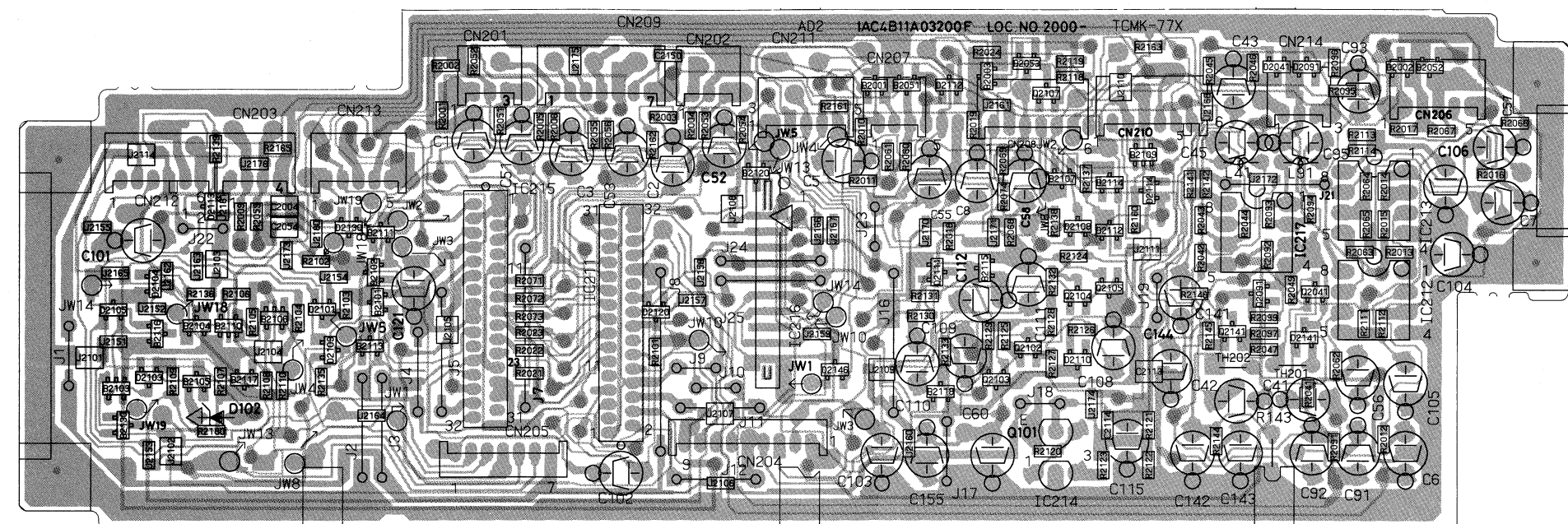
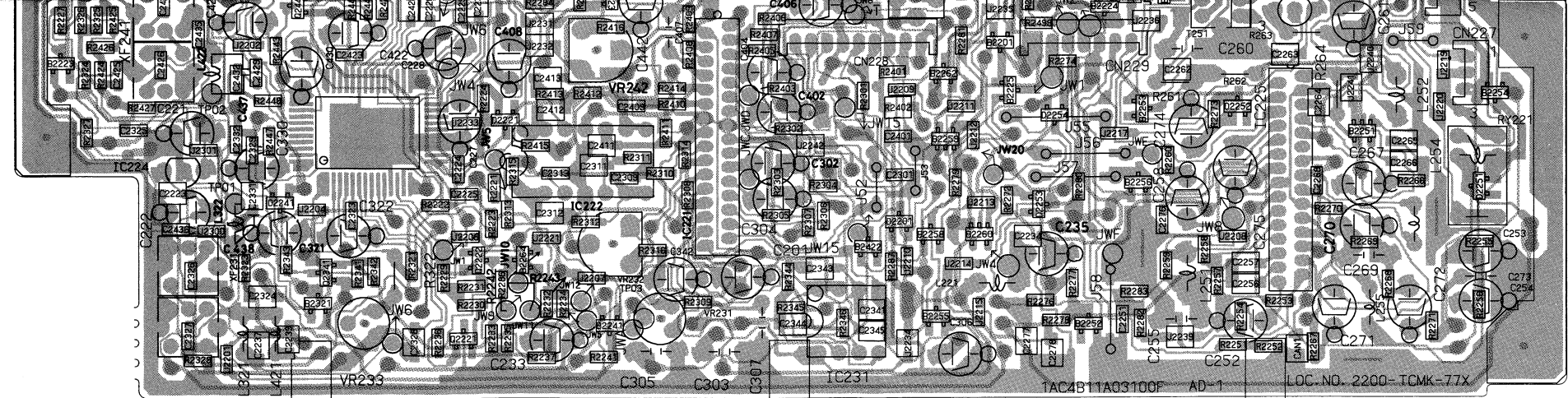
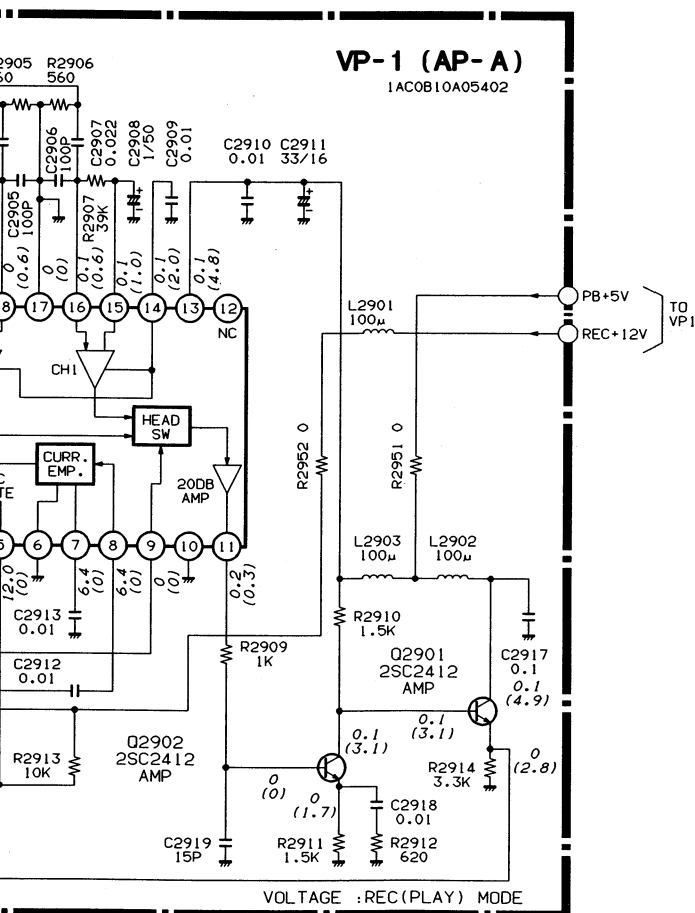
AD-2 AUDIO INPUT/OUTPUT SIGNAL SELECT P.C.B.





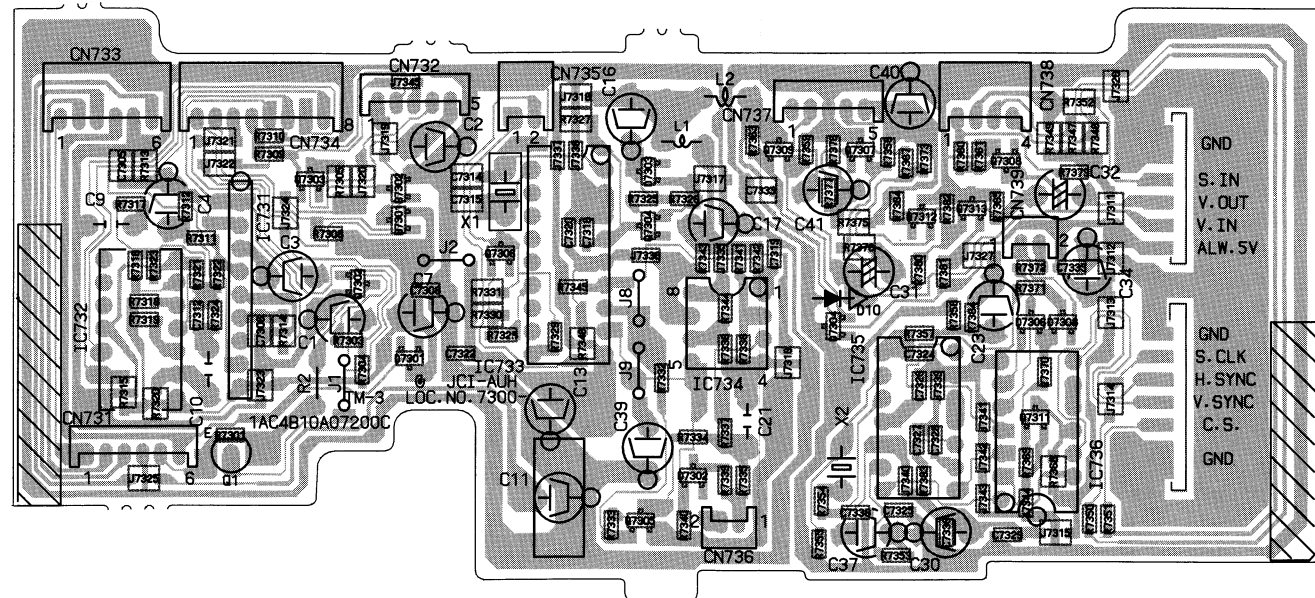


Vorverstärker
AUDIO PRE-AMP

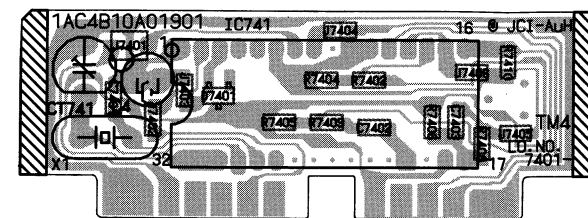


M
FM619 Q4
FM619 K4

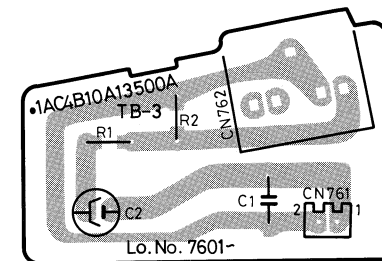
TM-3 SYNC. SEPARATION & BACK GROUND FOR CHANNEL SCAN P.C.B.



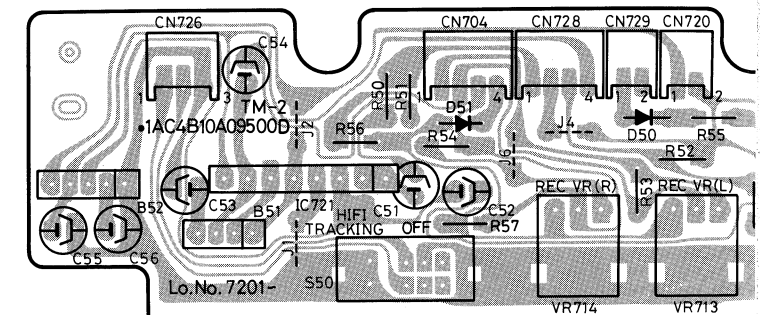
TM-4 BACK GROUND GENERATOR P.C.B.



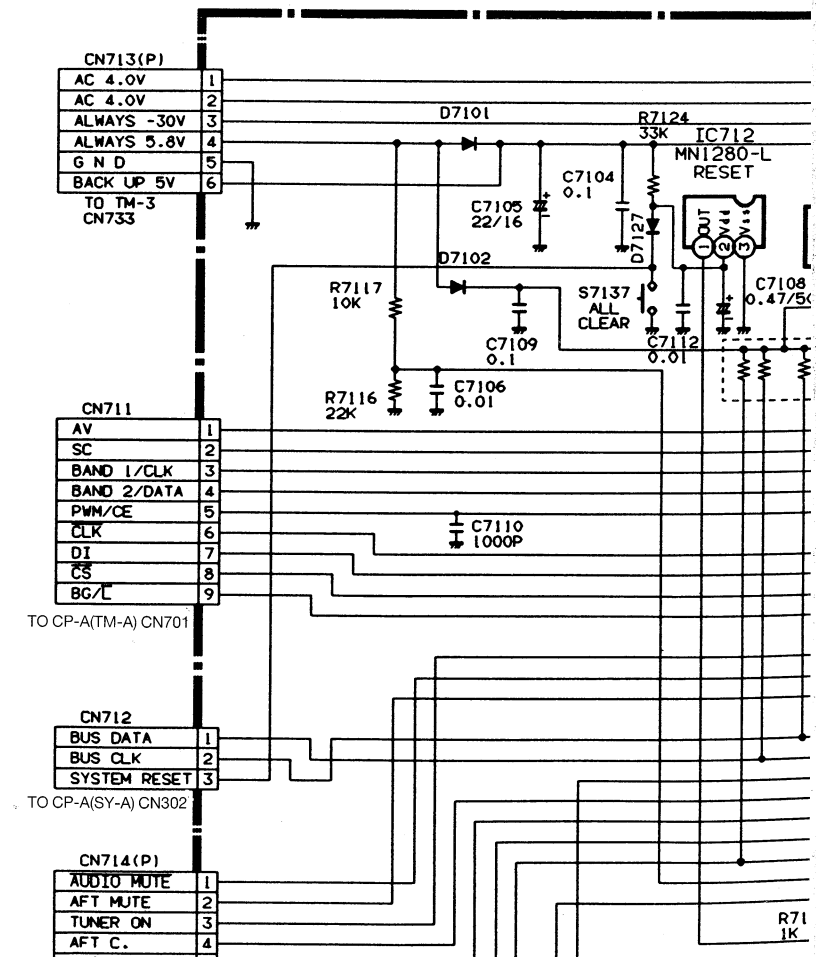
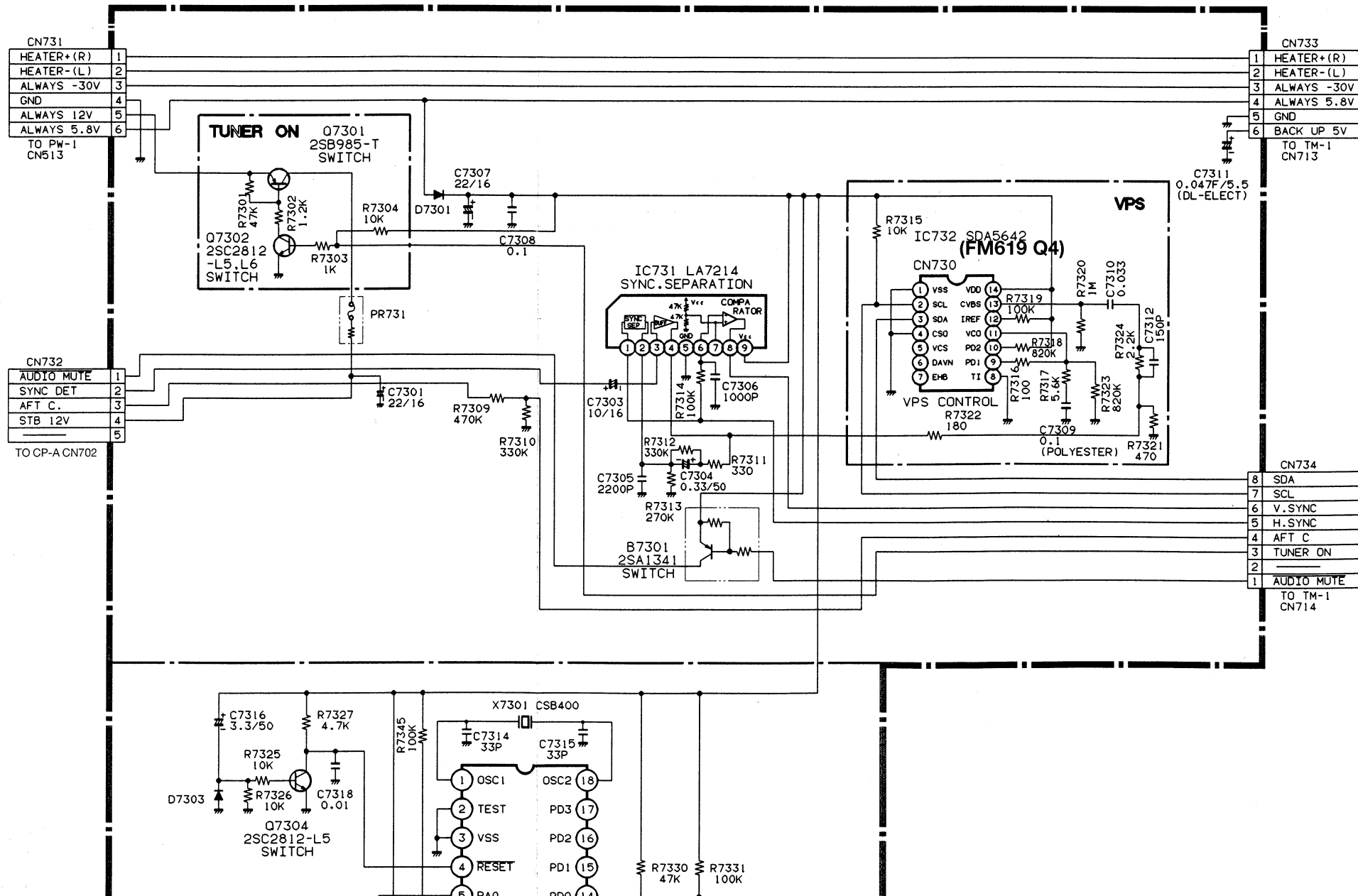
TM-2 MIC. AMP & SWITCH P.C.B. (FM619 Q4)



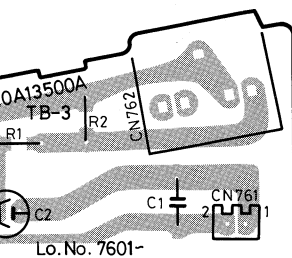
TB-3 MIC. JACK P.C.B. (FM619 Q4)



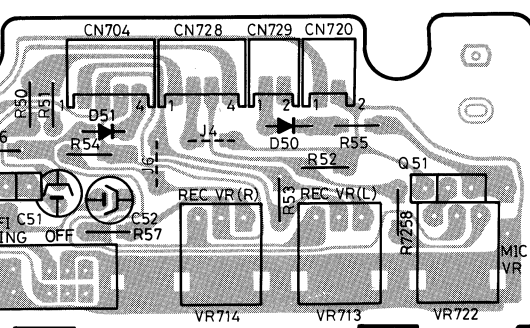
TM-3,4 VPS. TV REMOTE CONTROL & BACK GROUND FOR CH SCAN



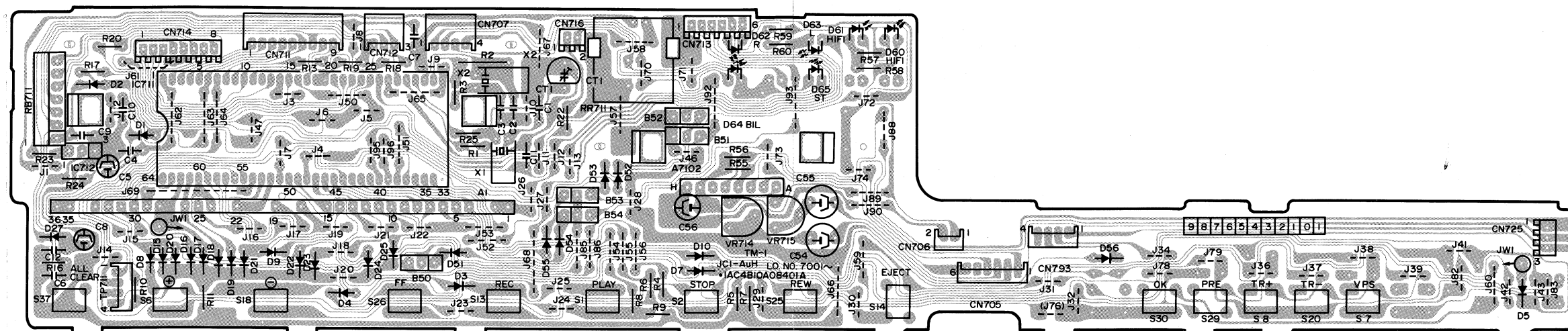
P & SWITCH P.C.B. (FM619 Q4)



C. JACK P.C.B. (FM619 Q4)

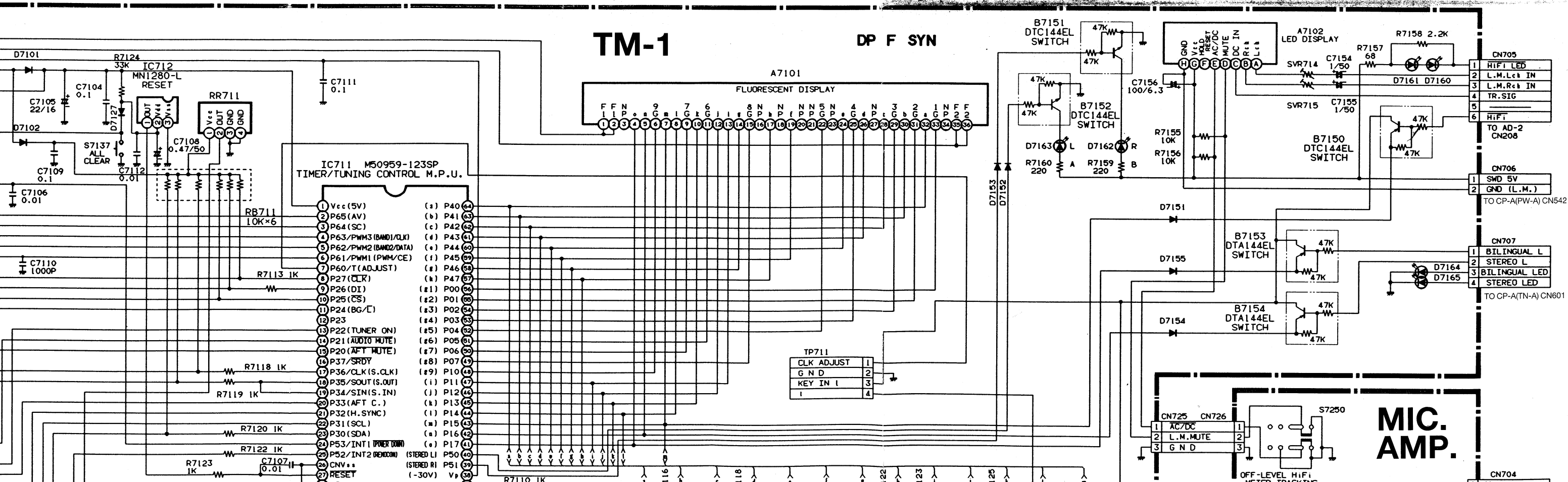


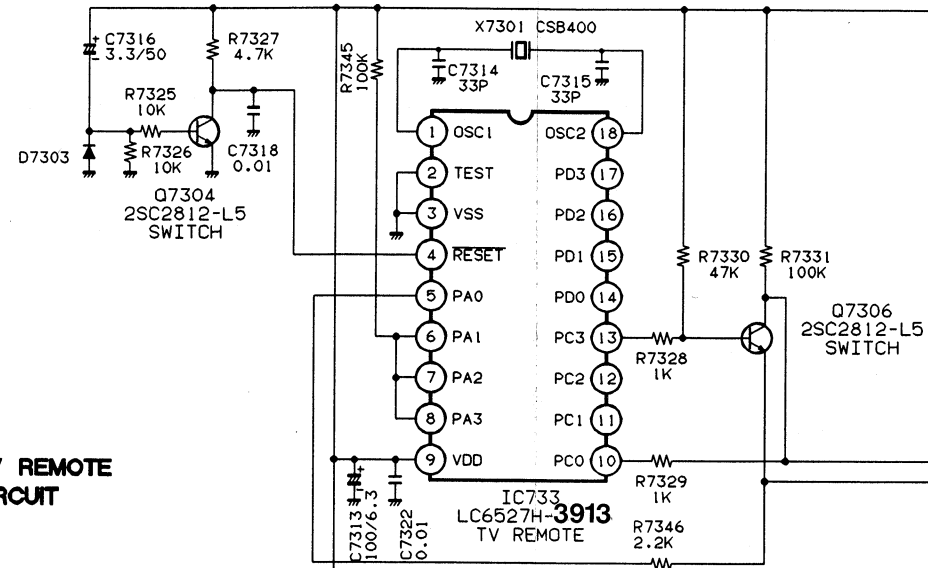
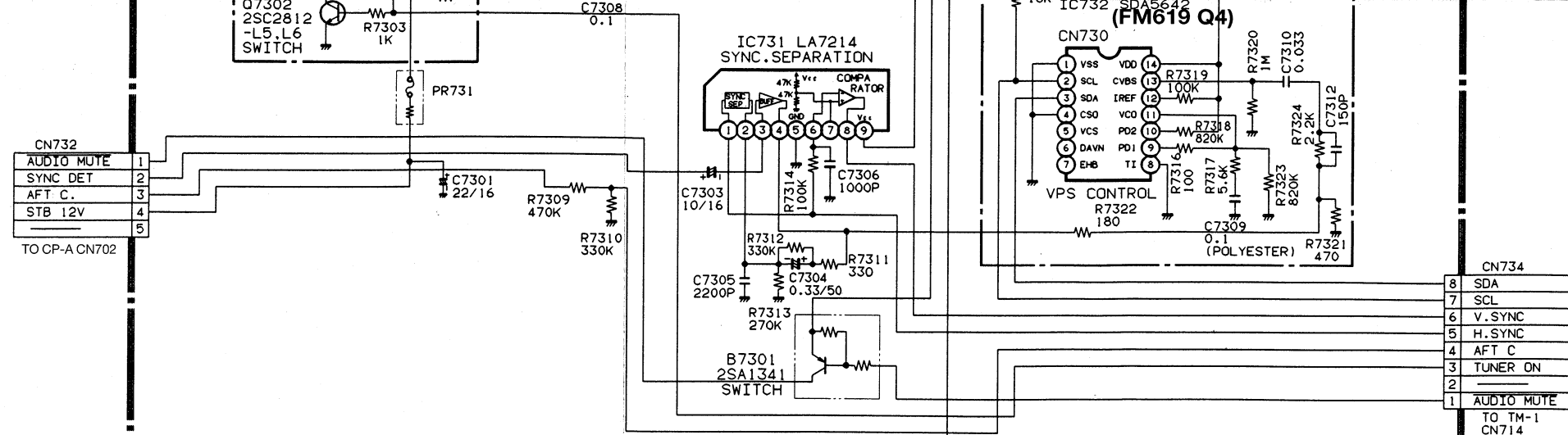
TM-1 TIMER, DISPLAY, TUNING CONTROL & SWITCH P.C.B.



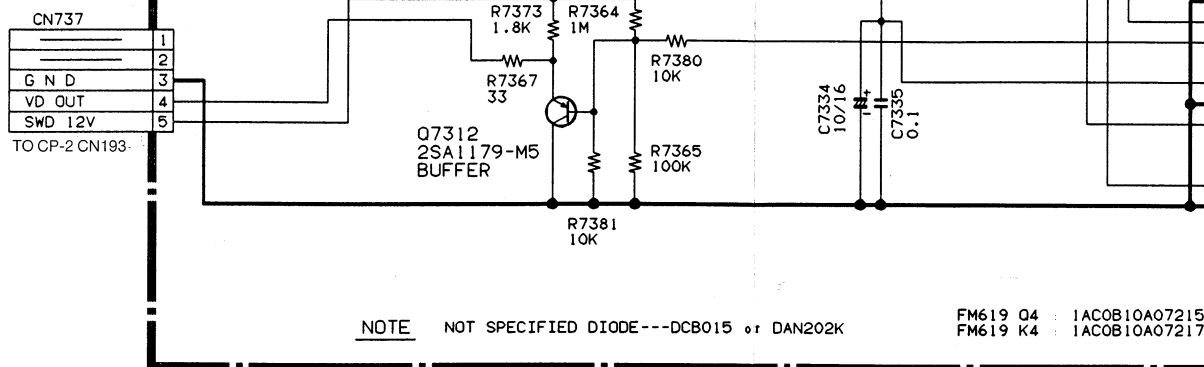
TM-1,2 Bedienteil, Timer, Anzeige

TB-3 TIMER, DISPLAY, TUNING CONTROL, SWITCH, MIC. AMP & MIC. JACK (FM619 Q4)



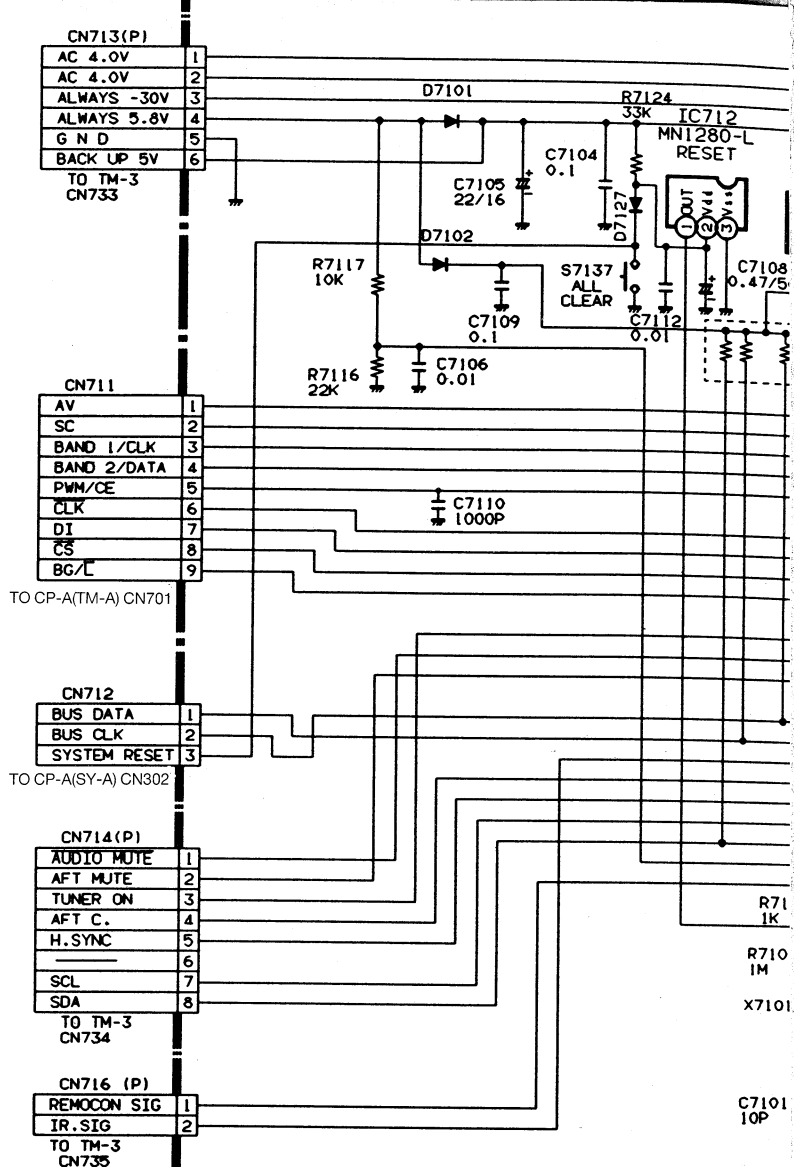
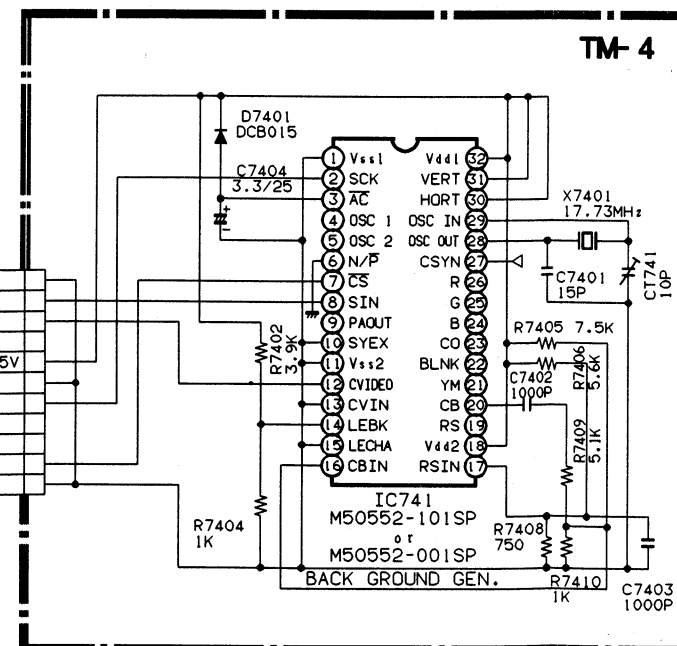


TM-3



NOTE NOT SPECIFIED DIODE---DCB015 or DAN202K

FM619 Q4 : IACOB10A07215
FM619 K4 : IACOB10A07217

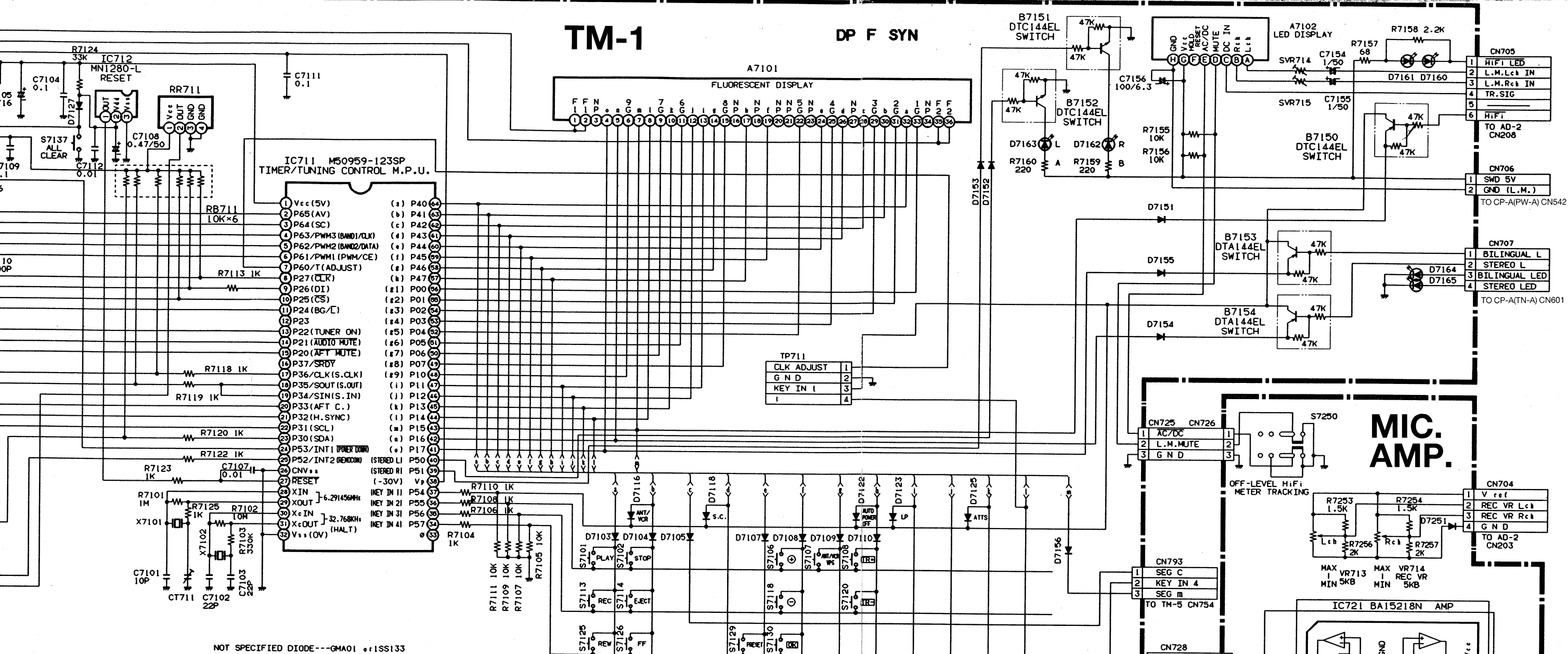


ANODE CONNECTION

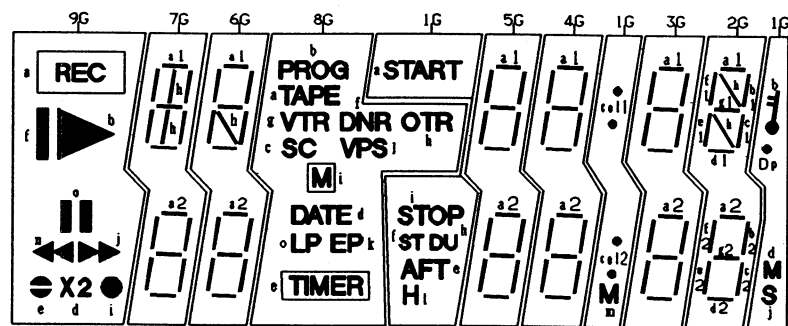
	9G	8G	7G	6G	5G	4G	3G	2G	1G
a		TAPE	a1	a1	a1	a1	a1	a1	START
b		PROG.	b1	b1	b1	b1	b1	b1	
c		SC	c1	c1	c1	c1	c1	c1	DP
d	x2	DATE	d1	d1	d1	d1	d1	d1	M(1)
e			e1	e1	e1	e1	e1	e1	AFT
f		DNR	f1	f1	f1	f1	f1	f1	ST
g	-	VTR	g1	g1	g1	g1	g1	g1	col.1
h	-	OTR			-	-	-		DU
i			g2	g2	g2	g2	g2	g2	STOP
j		-	b2	b2	b2	b2	b2	b2	S
k	-	EP	c2	c2	c2	c2	c2	c2	-
l	-	VPS	d2	d2	d2	d2	d2	d2	H
m	-	-	e2	e2	e2	e2	e2	e2	M(2)
n		-	f2	f2	f2	f2	f2	f2	-
o		LP	g2	g2	g2	g2	g2	g2	col.2

TM-1

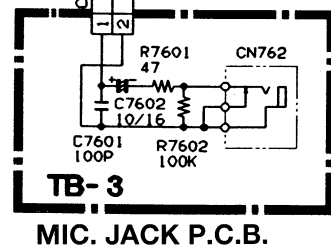
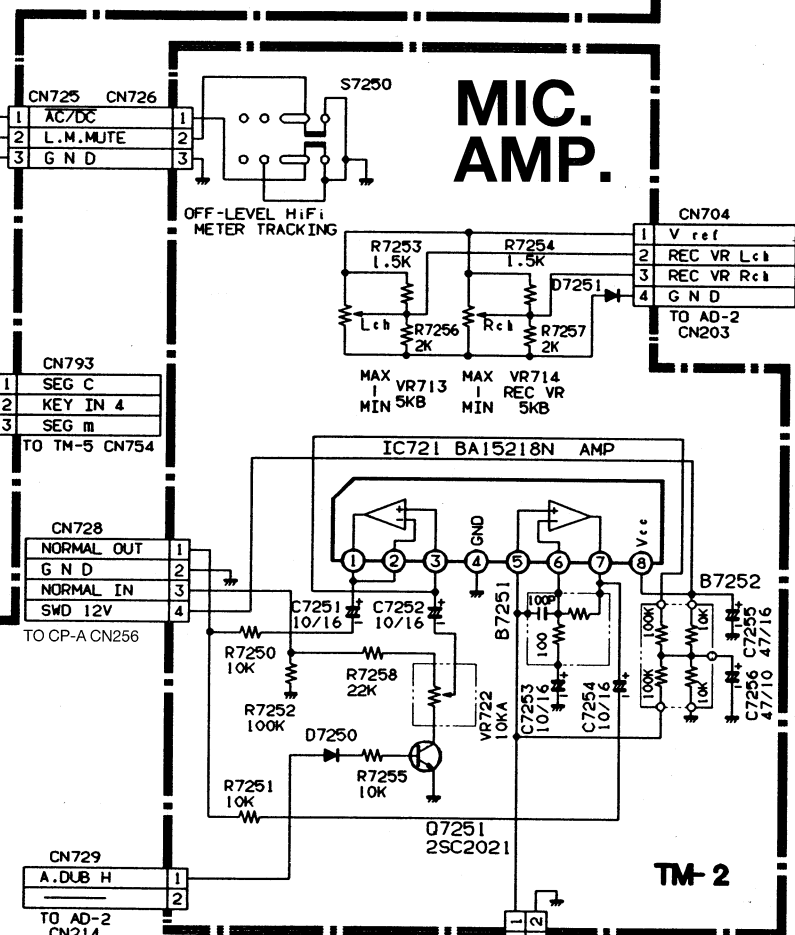
DP F SYN



GRID ASSIGNMENT / DISPLAY

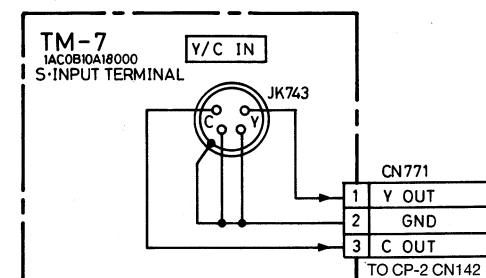


4G	3G	2G	1G
a1	a1	a1	START
b1	b1	b1	1
c1	c1	c1	DP
d1	d1	d1	M(1)
e1	e1	e1	AFT
f1	f1	f1	ST
g1	g1	g1	col. 1
-	-	-	DU
a2	a2	a2	STOP
b2	b2	b2	S
c2	c2	c2	-
d2	d2	d2	H
e2	e2	e2	M(2)
f2	f2	f2	-
g2	g2	g2	col. 2

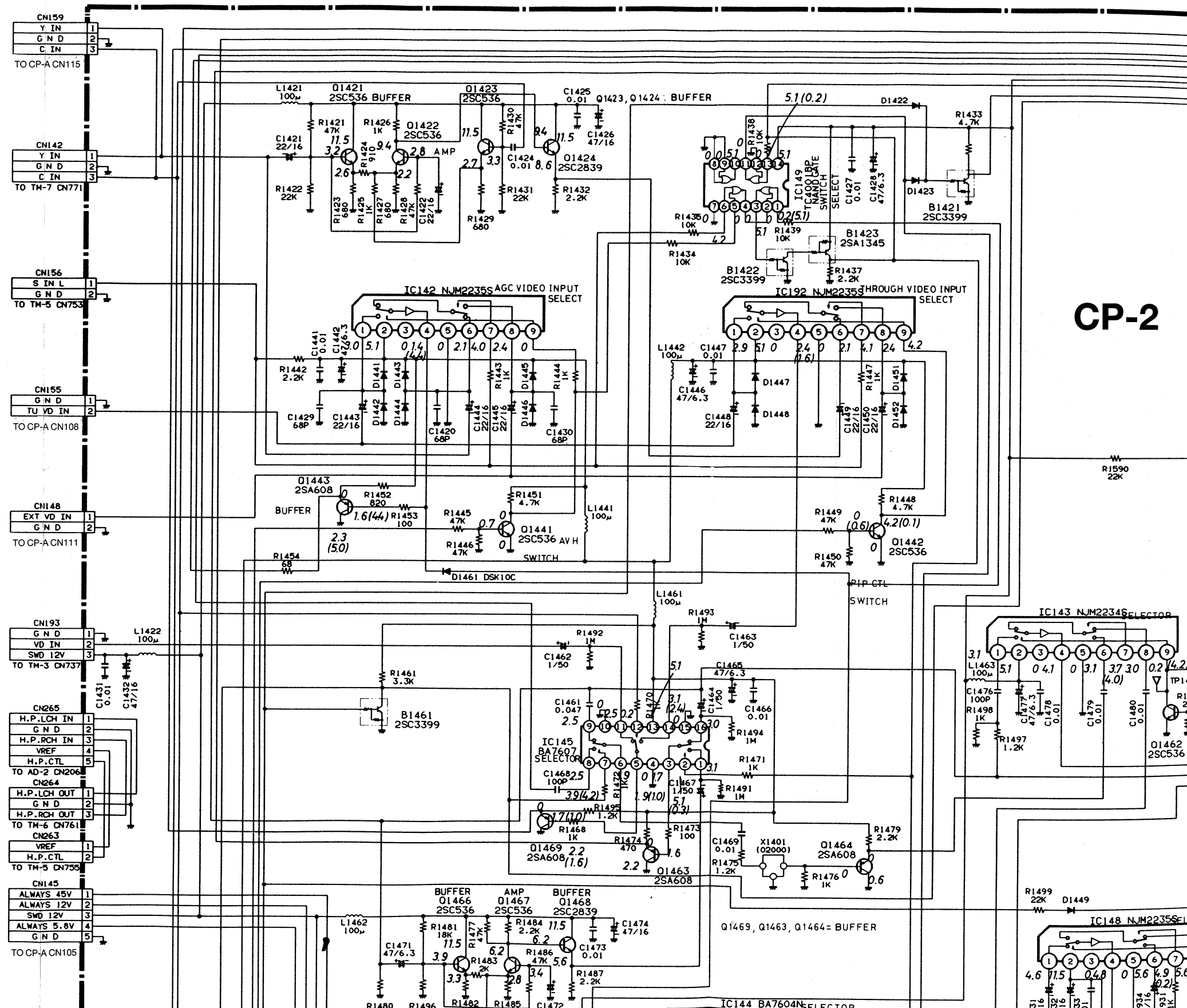
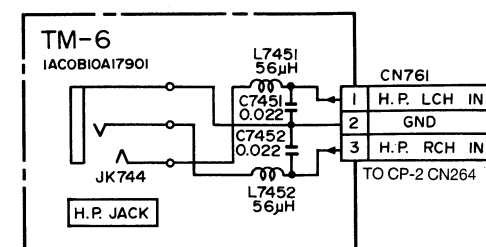


CP-2

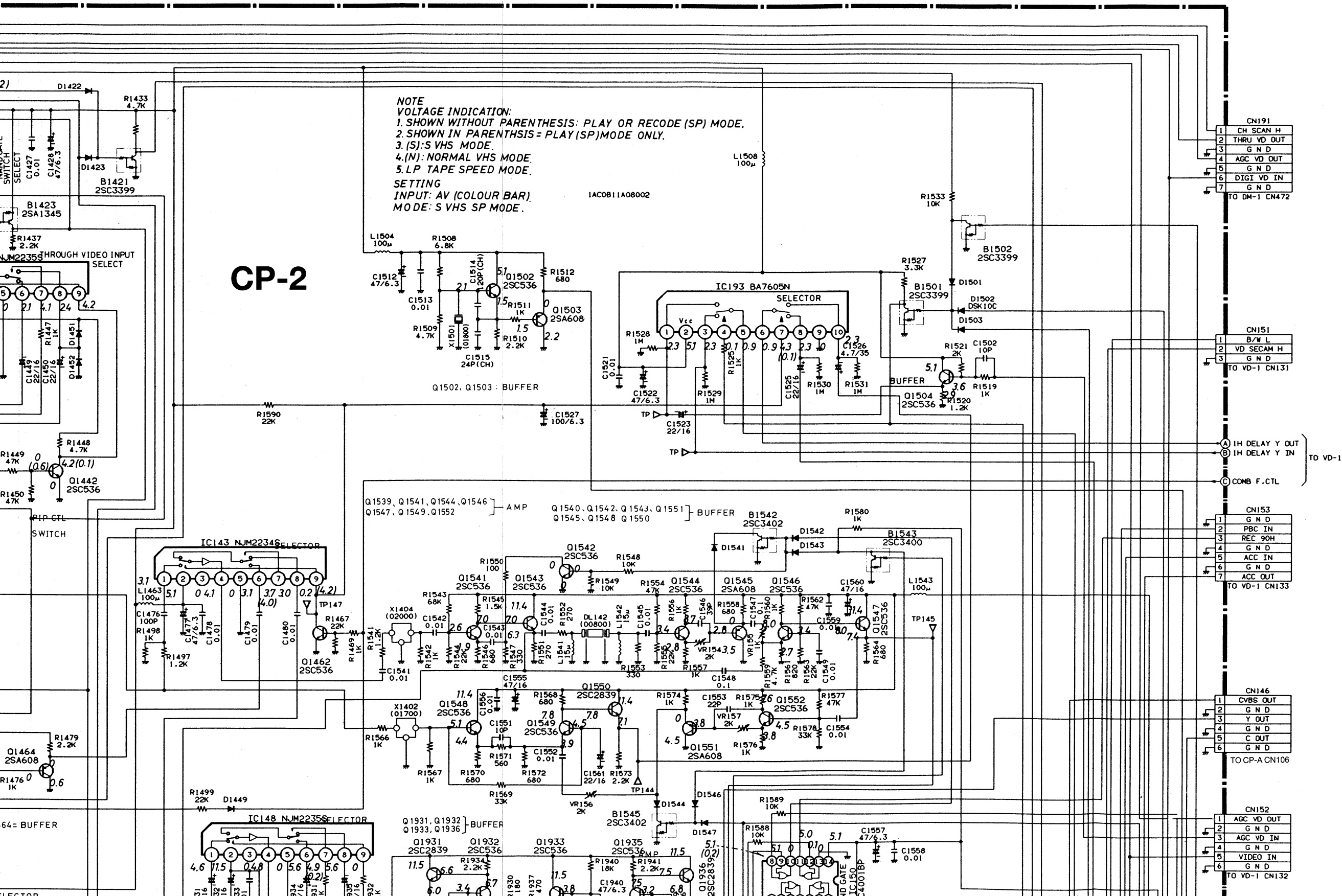
S-Buchsenplatte TM-7 S. INPUT TERMINAL



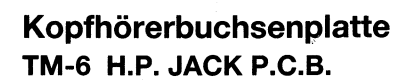
Kopfhörerbuchsenplatte TM-6 H.P. JACK P.C.B.

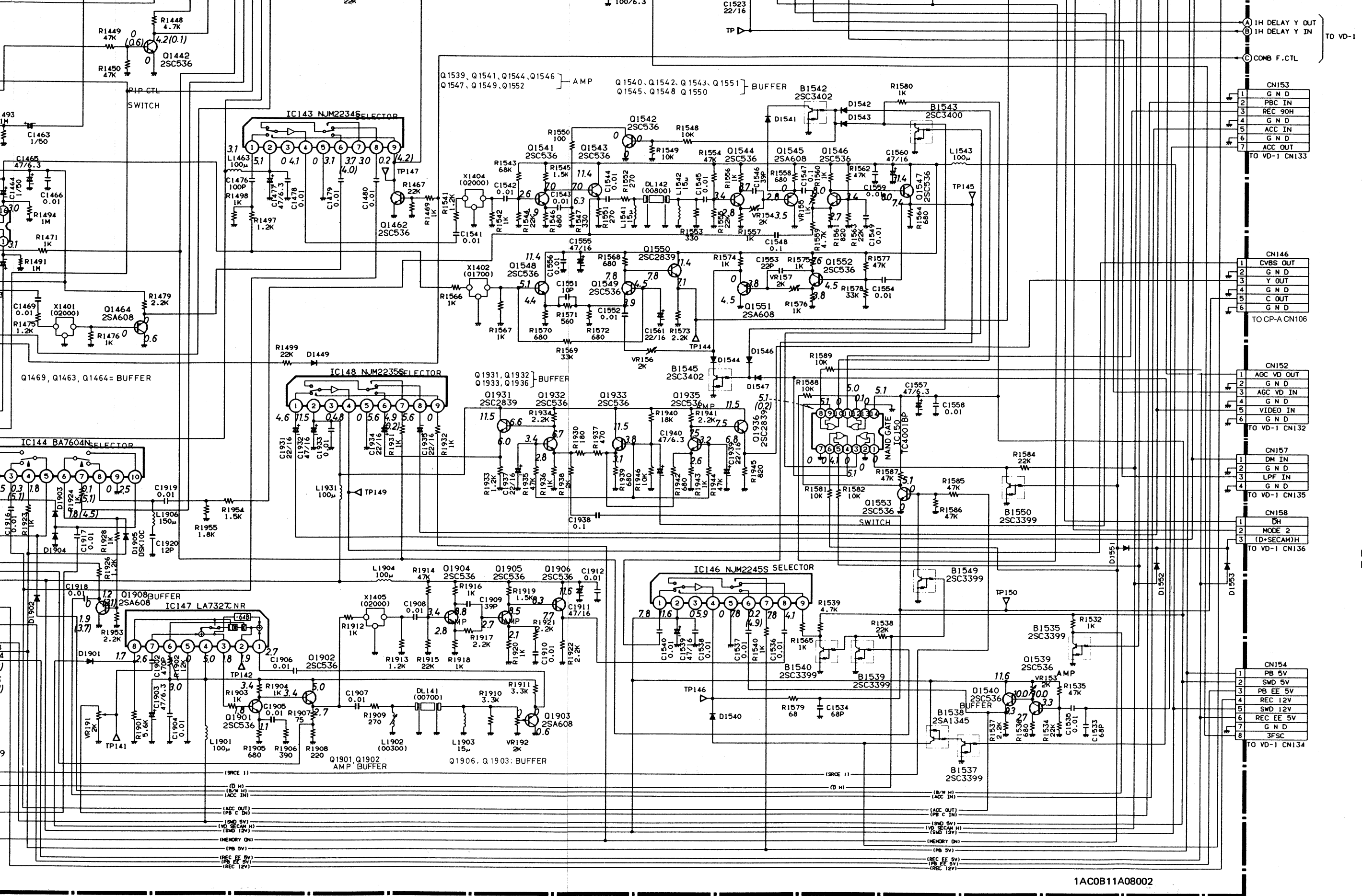


COMPL. CP-2 VIDEO (1)



A vertical scale with labels A through K. The labels are positioned to the left of a vertical line, and horizontal tick marks extend from the line to the right. The labels are: A, B, C, D, E, F, G, H, I, J, K.

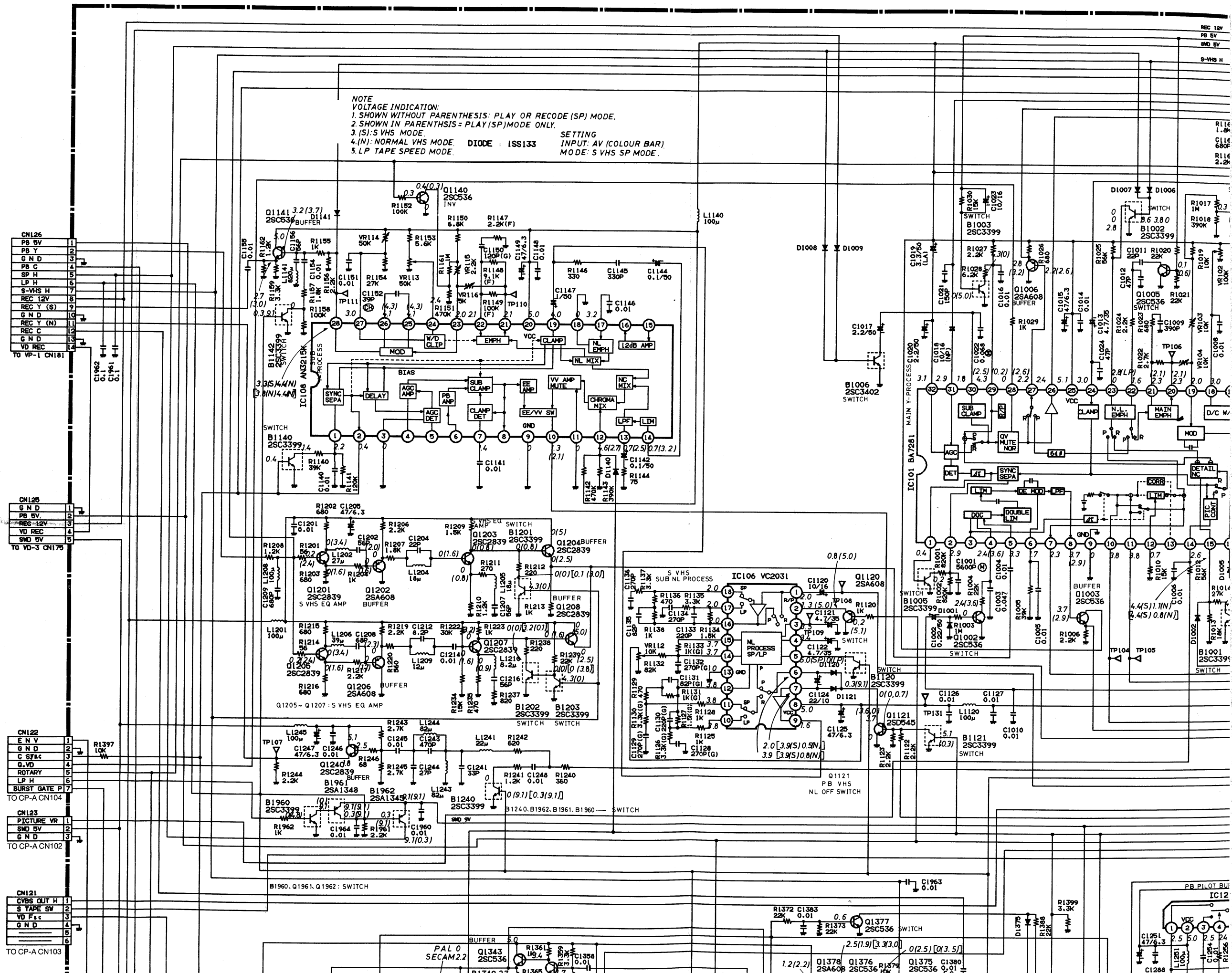




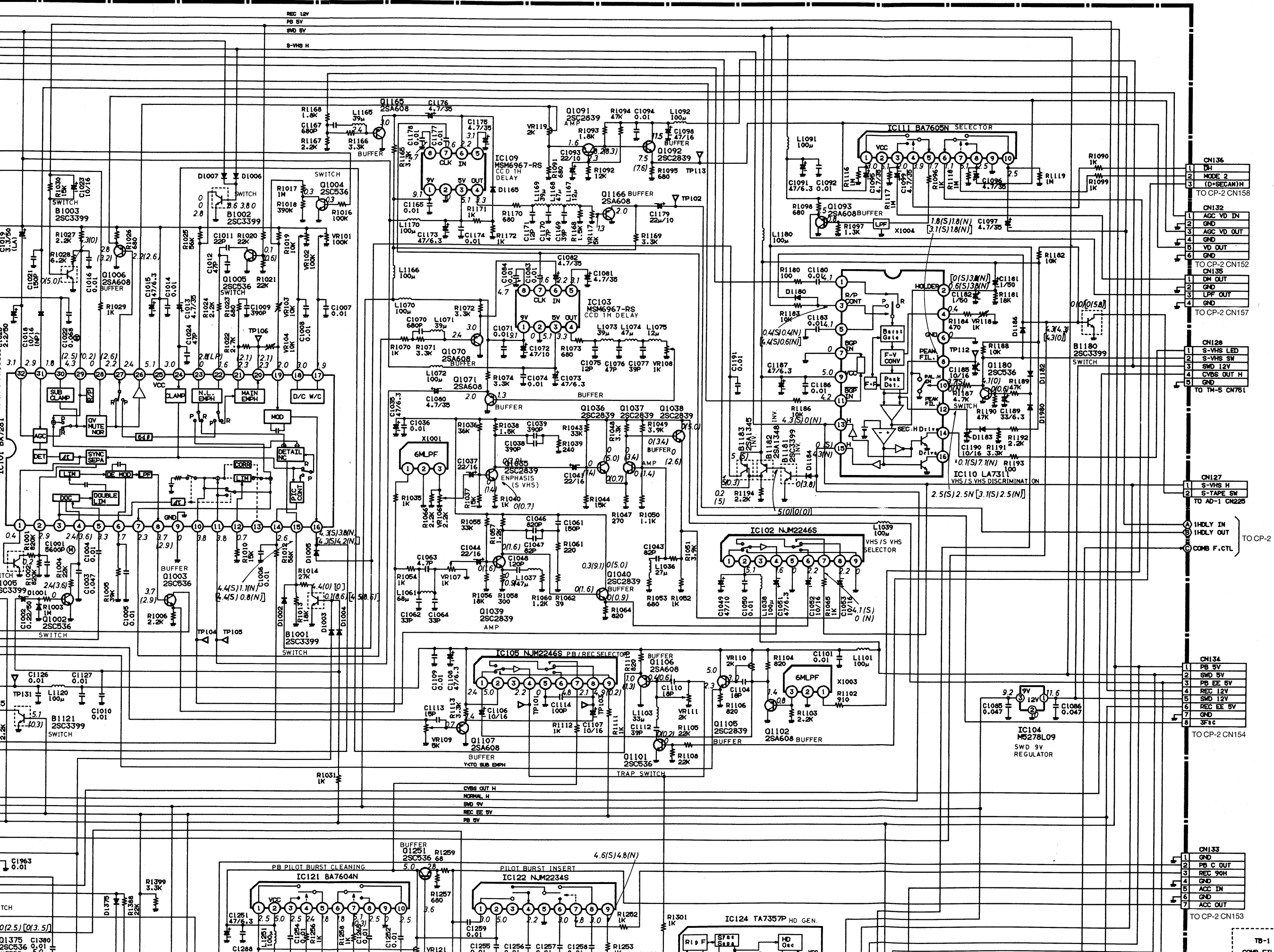
G
FM619 Q4
FM619 K4



13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

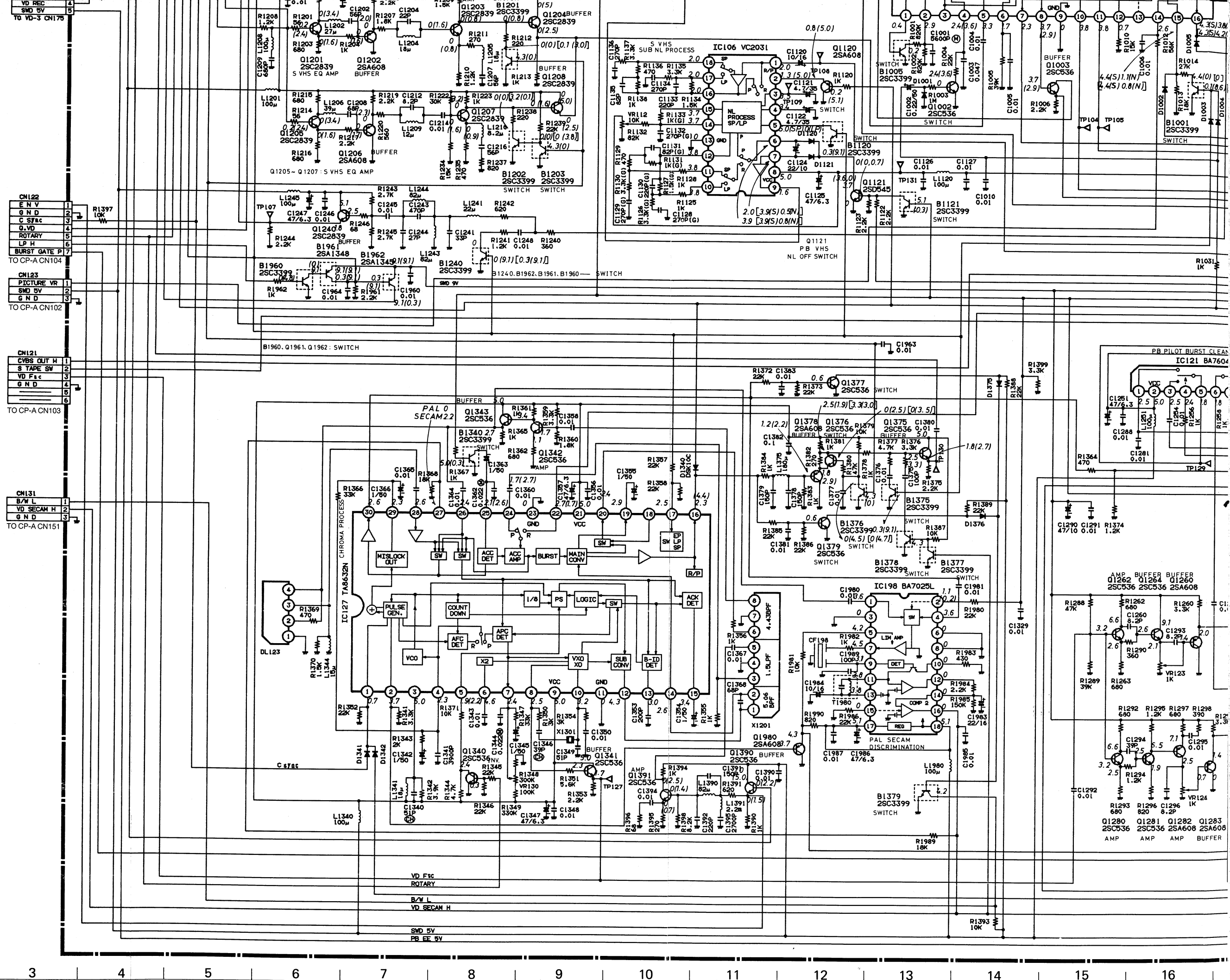


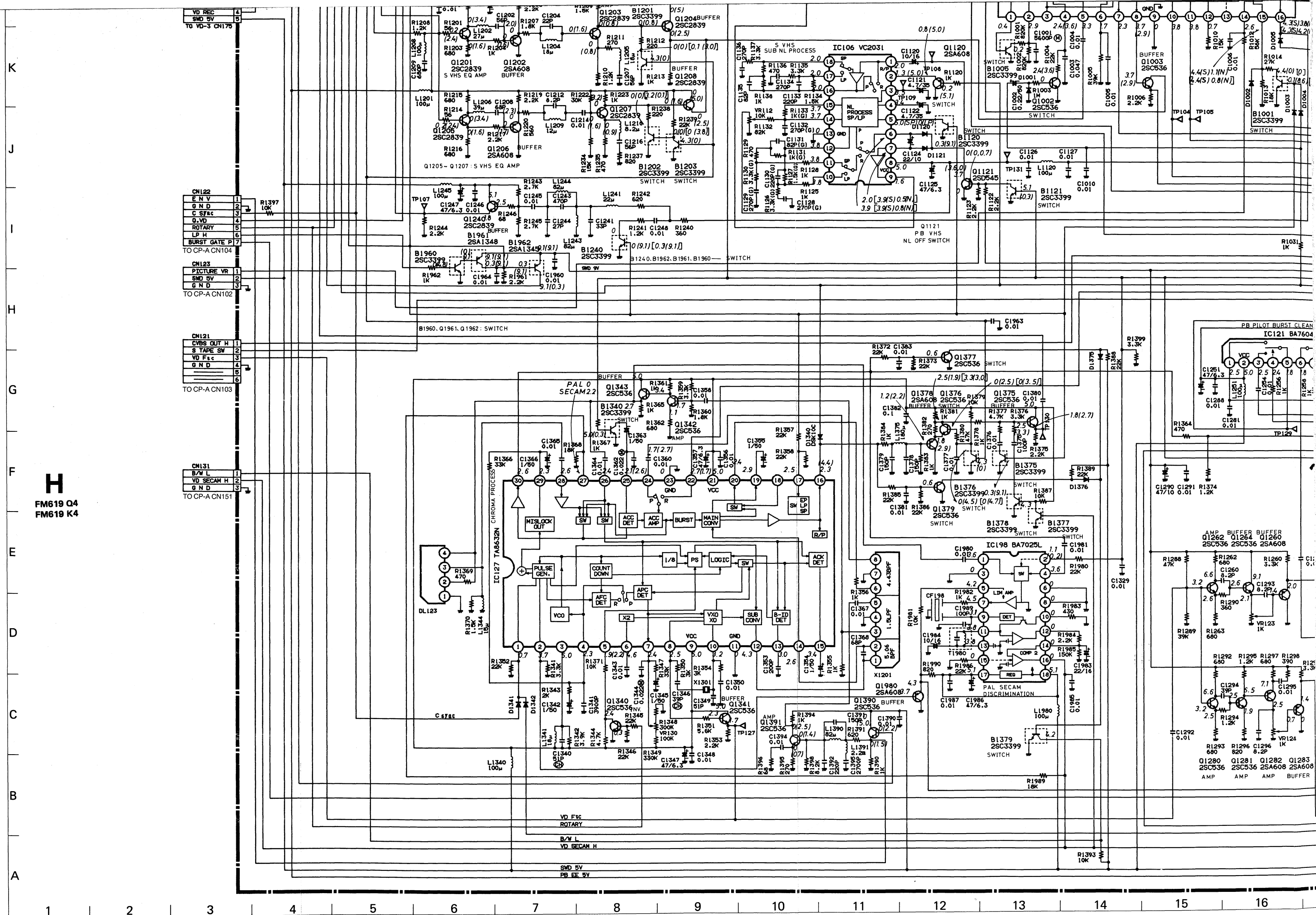
COMPL. VD-1 VIDEO (2)

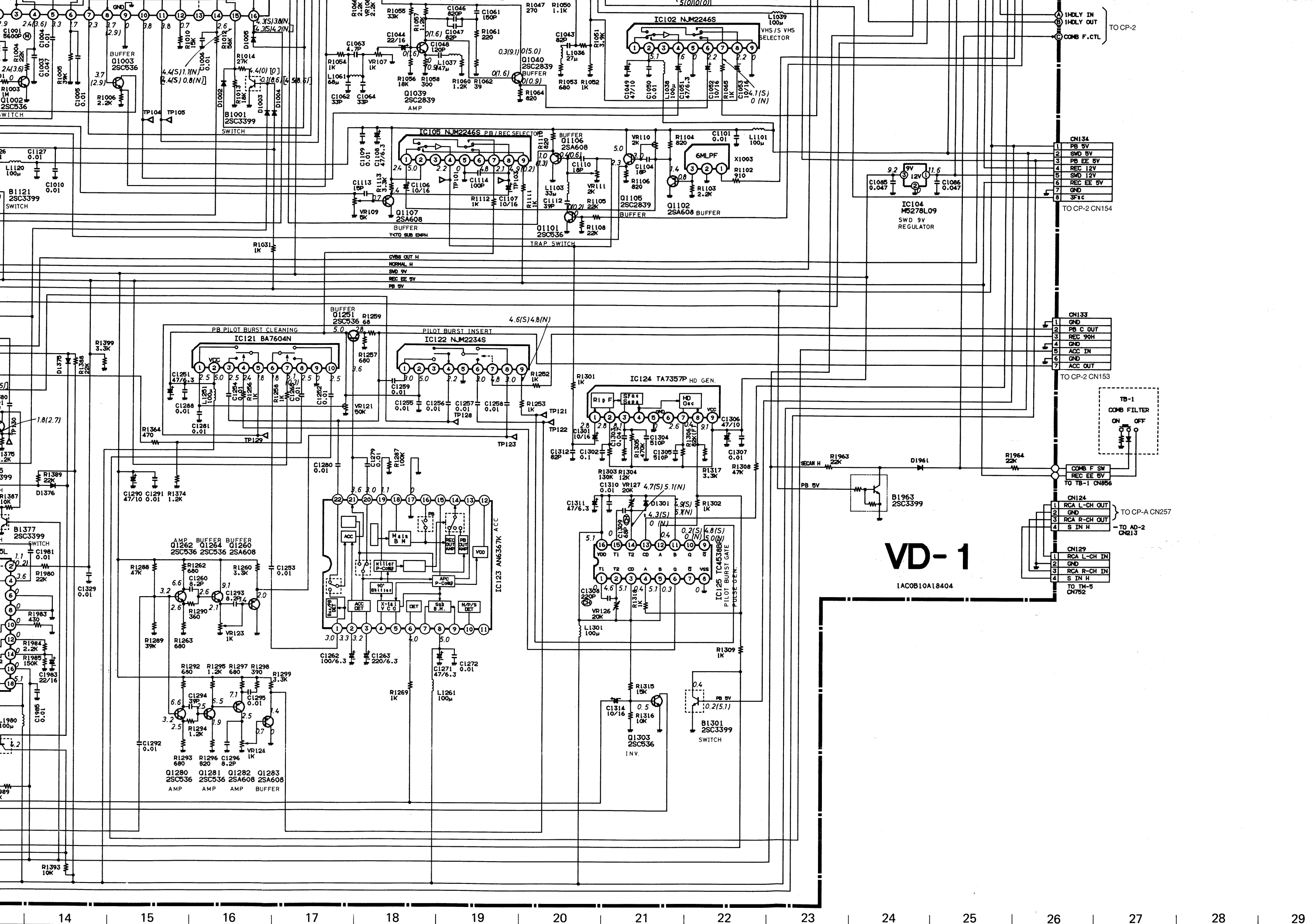


K
J
I
H
G
F
E
D
C
B
A

H
FM619 Q4
FM619 K4





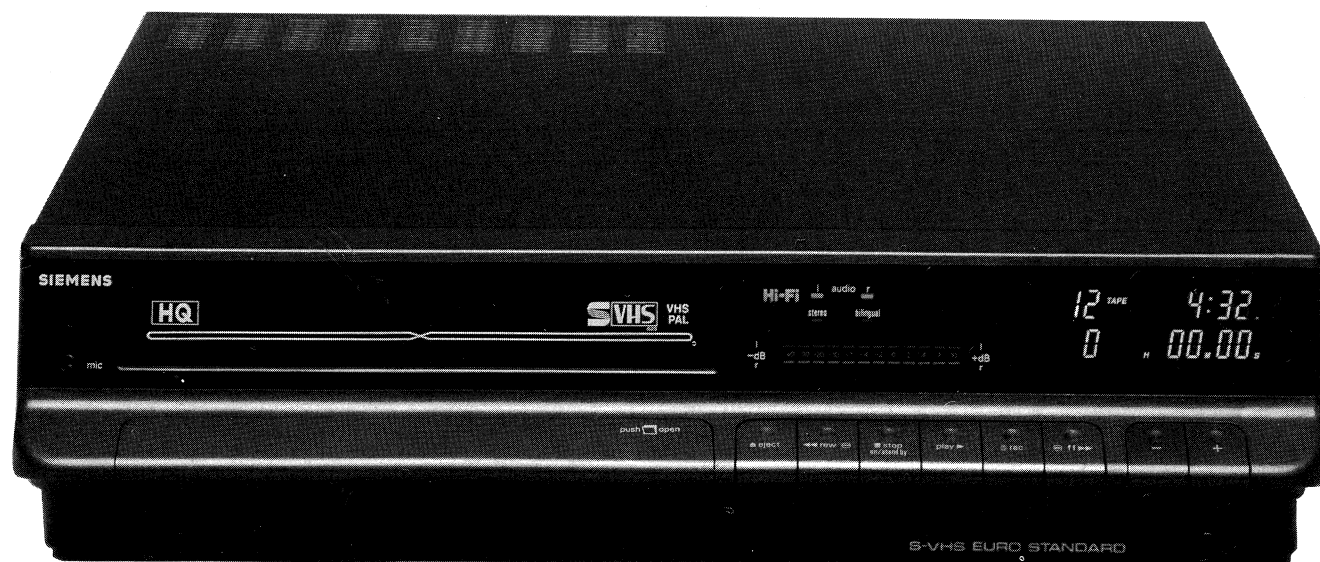


SIEMENS

Ergänzung zu der Kundendienstschrift FM619Q4/K4
Supplement to the Service Manual FM619Q4/K4
Supplemento del Manuale di Servizio FM619Q4/K

VIDEORECORDER FM639Q4 FM639N4

SVHS ₆₂₅ **HQ** **VPS** Hi-Fi-Stereo



ELEKTRISCHER ABGLEICH

ELECTRICAL ADJUSTMENT

Anmerkung:

Außer bei der MTS-Decoderschaltung (TN-3) und dem Digitalbaustein (DM-1, DM-3, DM-4) sind die Schaltungen und die grundsätzlichen Funktionen dieselben wie beim vorherigen Modell FM619Q4/K4. Daher wird in diesem Service Manual „Elektrischer Abgleich FM639Q4/N4“ nur der Abgleich des MTS-Decoders behandelt. Es ist ratsam, dieses Service Manual „Elektrischer Abgleich FM639Q4/N4“ zusammen mit den kostenlos erhältlichen „Service Manuals“ zum FM619Q4/K4 zu verwenden.

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2. ELEKTRISCHER ABGLEICH	
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* (siehe Elektrischer Abgleich FM619Q4/K4)

Note:

Excepting MTS Decoder PCB and Video Digital Process PCB, the circuit and basic operation for this modul (FM639Q4/N4) is the same that used for our previous model FM619Q4/K4. It is advisable to use the Service Manual together with the free materials on model FM619Q4/K4.

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2-9. NICAM DECODER CIRCUIT ADJUSTMENT	22 *

* (look at Electrical Adj. FM619Q4/K4)

2-8. ABGLEICH DER MTS (MULTIPLEX TV-SYSTEM)-DECODERSCHALTUNG.....TN-3 PCB

Anmerkung (1): VR631 ist von der Leiterbahnseite von CP-1 PCB zugänglich.

Nr.	Abgleich	Eingang	Betriebsart	Meßpunkt	Abgleichpunkt	Anmerkung
1	KANAL TRENNUNG	Audio Signal (r...1kHz 100% moduliert (l... 400Hz unmod.) aus MPX- Generator	EE	AUDIO- AUSGANG CN851 PIN 4 (Lch) (CP-1PCB)	VR631	1. Stellen Sie das Pilot-Signal auf Stereo ein. Während der linke Kanal unmoduliert ist, stellen Sie auf dem rechten Kanal eine 100%ige Modulation/1 kHz ein. 2. Schließen Sie einen Oszillographen an den Audioausgang (linker Kanal) an. Stellen Sie mit VR631 eine minimale Signalamplitude ein.
2	STEREO (117,5 Hz)	TV-Sender Stereo	EE	IC631 Pin 5	VR632	1. Wählen Sie einen Fernsehsender mit Stereosendung aus. 2. Stellen Sie mit VR632 eine maximale Signalamplitude ein.
3	2-Ton (274,1 Hz)	TV- Sender (2-Ton)	EE	IC631 Pin 6	VR633	1. Wählen Sie einen Fernsehsender mit 2 Ton-Sendung aus. 2. Stellen Sie mit VR633 eine maximale Signalamplitude ein.

2-8. MTS (Multiplex TV System) DECODER CIRCUIT ADJUSTMENT.....TN-3 PCB

NOTE (1): The VR631 is accessible from the foil side of CP-1 PCB.

No.	Item	Input	Mode	Point	Location	Remark
1	STEREO SEPARA- TION	Audio signal (R ch...1 KHz 100% mod. L ch...400Hz unmod.) from Audio MPX TV signal generator	E-E	AUDIO OUTPUT CN851 pin 4 (Lch) (CP-1 PCB)	VR631	1. Set the pilot signal for the stereo mode. With the L ch unmodulated, provide 1 KHz 100% modulation on the R ch. 2. Connect an oscilloscope to the audio out- put terminal (L ch) and adjust VR631 for minimum waveform peak-to peak value.
2	STEREO (117.5Hz)	TV broadcast (Stereo)	E-E	IC631 pin 5	VR632	1. Select the TV channel to stereo pro- gramme. 2. Adjust VR632 so that the waveform is maximize.
3	BILINGUL (274.1Hz)	TV broadcast (Bilingul)	E-E	IC631 pin 6	VR633	1. Select the TV channel to bilingul pro- gramme. 2. Adjust VR633 so that the waveform is maximize.